The Dissertation Committee for Jee Gabrielle Paik Certifies that this is the approved version of the following dissertation:

Expressing emotions in a first and second language: Evidence from French and English

Committee:

David Birdsong, Supervisor

Carl Blyth

Bryan Donaldson

Richard Meier

Diane Schallert

Expressing emotions in a first and second language: Evidence from French and English

by

Jee Gabrielle Paik, B.A., M.A.

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Dedication

For Terry and our little blessed one,

Wonkyung and Younhee, my dad and mum whom I love dearly,

Joon, Soo, Christine, and Sung,

my beloved family

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Expressing emotions in a first and second language: Evidence from French and English

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Jee Gabrielle Paik, Ph.D.

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Supervisor: David Birdsong

This dissertation presents results from a study on the expression of emotions in a second language in order to address two overarching research questions: 1) What does the acquisition of L2 emotion lexicon and discourse features tell us about the pragmatic and communicative competence of late learners and the internalization of L2-specific concepts, and 2) Knowing that expressing emotions in L2 is one of the most challenging tasks for L2 learners (Dewaele, 2008), what can late L2 learners do at end-state, with regards to ultimate attainment and the possibility of nativelikeness?

Narratives of positive and negative emotional experiences were elicited from late L2 learners of English and French at end-state, both in their L1 and L2. First, the acquisition of L2 emotion words was analyzed through the productivity and lexical richness of the emotion vocabulary of the bilinguals. Analysis of L2 emotion concepts was also conducted through the distribution of emotion lemmas across morphosyntactic categories. Lexical choice of emotion words was also investigated. Results showed that although L2 English and L2 French bilinguals' narratives were shorter than the monolinguals' and the proportion of emotion word tokens were fewer than that of

monolinguals', bilinguals showed greater lexical richness than the monolinguals. In terms of morphosyntactic categories, bilinguals behaved in a nativelike pattern such that L2 English bilinguals favored adjectives and L2 French bilinguals preferred nouns/verbs. This pattern was held constant across the first languages of the bilinguals. With respect to lexical choice, bilinguals used the same emotion lemmas used the most by monolinguals. On occasion, non-nativelike patterns also emerged, suggesting both L1 transfer on L2 (L2 English bilinguals favoring nouns/verbs) and L2 transfer on L1 (L1 English bilinguals favoring nouns/verbs). However, these rare instances could be explained by individual and typological variability. The findings suggest that late L2 learners can achieve nativelike levels of attainment in L2, providing evidence against the existence of a critical period for the acquisition of L2 pragmatics and culture-specific L2 lexicon.

In a separate analysis, the L2 discourse of emotion was investigated under a corpus linguistic framework, in order to shed some light into the ways late L2 learners of English and French talk about emotions in narratives of personal stories. The use of stance lemmas and tokens, and the distribution of these stance markers across categories of certainty and doubt evidentials, emphatics, hedges, and modals, as well as lexical choice of stance were analyzed. This was followed by an analysis of discourse features, such as figurative language, reported speech, epithets, depersonalization, and amount of detail. Results showed that although bilinguals produced significantly less stance lemmas and tokens than monolinguals, in terms of the distribution of stance categories, the French group (L2 French and L1 French bilinguals) behaved in a nativelike pattern, favoring emphatics, certainty evidentials, doubt evidentials, hedges, and modals. The English group's results, on the other hand, were somewhat inconsistent, in that neither L2 English bilinguals, nor L1 English bilinguals followed the distribution pattern of English monolinguals. In terms of nativelike performance, we conclude that the L2 French bilinguals did perform nativelike with regards to stance marking, and that L2 English bilinguals also performed nativelike, but only for certain categories of stance. Also, L2 English transfer on L1 French was evidenced for L1 French bilinguals. Analysis of discourse features revealed between 1 up to 10 bilinguals (L2 English or French) out of

31 who used those features which were only evidenced in native speech in previous research. The findings here, once again suggest that late L2 learners can acquire aspects of L2 discourse to a nativelike degree.

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Chapter 1: Introduction

Until recently, research in second language acquisition (L2A) has primarily focused on age effects in relation to the level of achievement in L2 morphosyntax and phonology, with L2 learners' performance compared to the yardstick of the monolingual speaker. Studies of L2 ultimate attainment of late learners (i.e., L2 attainment at end-state or asymptote) in those linguistic areas and the rate of nativelike performance in L2 have gained much attention, but still, much less data is available on the lexical, semantic, and pragmatic performance of late L2 learners generally, and studies on the eventual outcome of L2 lexical and pragmatic acquisition are even harder to find in the L2A literature. At present, only a small number of such studies have been carried out (six in the area of L2 lexicon, according to Hellman, 2008) and research on the ultimate lexical acquisition of L2 with regards to age effects has yielded inconclusive results. Four studies, including Hyltenstam (1988/1992), Kim (1997), Spadaro (1998), and Lee (1998, in Long, 2007) are frequently cited as support for maturational constraints whereas two others, Bahrick et al. (1994) and Marinova-Todd (2003a), have shown evidence contradicting the existence of a critical period for L2 lexical acquisition, by confirming the possibility of nativelike L2 lexical attainment by late learners. In the area of L2 pragmatics, communicative competence, especially the appropriate use of L2 speech acts (such as apologies, compliments, complaints, expression of gratitude, etc.) and L2 learners' discourse ability (Kasper and Rose, 2002) have been examined. However, studies of ultimate attainment in L2 pragmatics are few. One such study is that of Marinova-Todd (2003a) who analyzed the pragmatic performance of late L2 learners based on their narrative cohesiveness and construction and use of appropriate speech acts, and found 40% of the subjects in the native range.

L2 learners need to know more about the target language than just the phonological, morpho-syntactic rules of the second language. In terms of communicative/pragmatic competence, they not only strive for linguistic accuracy, but

also for social and pragmatic appropriateness. In this regard, research on the expression of emotion in L2 can shed some light into the communicative competence of L2 learners, specifically their ability to convey appropriately their own emotions in the target language. This study aims to explore such areas by investigating both the lexical and discursive performance of late L2 learners of English and French at end-state in expressing emotion in an L2. Given the interdisciplinary nature of this endeavor, both experimental and interpretative approaches are considered for this study: the scientific analysis of L2 performance, based on an etic perspective (i.e., that of the researcher) will be combined with an emic analysis of the data (i.e., that from the points of view of the subject) (Dewaele, 2008).

In very broad terms, the overarching research questions are: 1) what does the acquisition of L2 emotion lexicon and discourse tell us about the pragmatic and communicative competence of late learners and the internalization of L2-specific concepts, and 2) knowing that expressing emotions in L2 is one of the most challenging tasks for L2 learners (Dewaele, 2008), what can late L2 learners do at end-state, with respect to ultimate attainment and the possibility of nativelikeness?

As the majority of the research carried out in the field of L2A has focused on L2 morphosyntax and phonology, the present study aims to add to the body of literature by investigating L2 pragmatics in the context of expressing emotions. This study is also motivated by the minimal number of studies examining L2 lexicon at end-state (more in Chapter 2), especially emotion lexicon. Moreover, to my knowledge, this dissertation is one of very few in-depth studies of emotional expression in French (after parts of the study by Dewaele and Pavlenko, 2002) and the first study to examine the performance of *late* English-French, French-English bilinguals in expressing emotions.

1.1 MOTIVATION FOR RESEARCH

1.1.1 To study, or not to study emotions: that is the question

Whereas the domain of human emotions is at the center of our lives and interests, research on emotions, especially on the ways of expressing emotions in language, has been controversial because emotions have to do both with psychology and linguistics; therefore they are elusive and difficult to grapple with. On the one hand, there seems to be no objective way of evaluating or comparing emotions between people or between different cultures. In fact, although emotional experience is the most fundamental of human experiences and the emotive function of language may be universal, the conceptual understanding of the term 'emotion' itself markedly differs from culture to culture and the human cognition for particular emotional states differs cross-culturally. On the other hand, even at the linguistic level, labels for particular emotions are language-specific and difficult to compare cross-linguistically (Wierzbicka, 1991, 1995).

Thus, the task of describing and comparing emotions on a cross-linguistic scale is often controversial and the study of emotions tends to be criticized and discarded as irrelevant in the scientific domain of research. To put it simply, emotions are messy. The number of emotions clearly identified varies considerably, the meaning of emotions, their classification and evaluation, the kind of situations or social contexts that generate particular emotions differ considerably from one speech community to another, the ways in which emotions are displayed in speech and the power and function of that particular discourse vary from one language to another. Moreover, the linguistic status of emotive language within current approaches to linguistics has been debatable, especially given the fact that "emotive language has typically been conceived of as belonging to *parole* and not *langue*, in other words, as not belonging to the linguistic system" (Blyth, 1994, p. 131). This marginalization of emotive language within the field of linguistics has followed the distinction between emotion and cognition, where emotion is viewed as idiosyncratic and cognition as rule-governed, and therefore susceptible to formal analysis (Beeman, 1988; Irvine, 1990). However, linguists such as Jakobson and Sapir have tried

to justify the importance of the emotive function of language, arguing that the emotive language is perfectly conventional and susceptible to formal, logical analysis as well:

> An overwhelming proportion of the mechanisms of affective language are no less collective and no less conventional than the mechanisms of intellectual language. Every community of speakers has two closely linked language systems: on the one hand, the intellectual system […] and on the other, the affective system, the body of essential conventions that allow the members of a given community to express their feelings to each other (Jakobson, 1990, p. 100).

Thanks to this kind of approach, in the last two decades, the study of emotions has gained much attention from scholars in the interdisciplinary fields of psychology, philosophy, ethnology, anthropology, sociology, and linguistics (Rosaldo, 1980; Lutz, 1986; Kövecses, 1990; Wierzbicka, 1992; works of Pavlenko and Dewaele, among others). In linguistics, in particular, researchers examine ways in which emotions are differently conceptualized in various cultures and how these culturally distinct conceptualizations affect the verbal (and non-verbal) display and perception of emotions. Given the close connection between language and culture and between culture and emotions (Matsumoto and Assar, 1992; Porter and Samovar, 1998), it is not surprising that the language of emotions and emotional expressivity will reflect the culturally diverse linguistic devices available in the language in question.

1.1.2 What can the study of emotions and L2A/bilingualism tell us about the current state of L2A research?

As Shweder (1992) points out:

> It is one of the great marvels of life that, across languages, cultures and history, it is possible, with sufficient knowledge, effort and insight, to truly understand the meanings of other peoples' emotions and mental states. Yet one must also marvel at one of the great ironies of life, viz., that the process of understanding the consciousness of others can deceptively appear to be far easier than it really is, thereby making it even more difficult to achieve a genuine understanding of "otherness" (p. 34).

In second language acquisition research, that same goal of "understanding the other" still applies as the purpose of any linguistic study. Researchers try to describe the "other's" language, i.e., the L2 speaker's language by comparing it to that of a prototype, the native speaker's. But the task at hand is no easy task and given all the factors that come into play, it might even be possible that one may never fully understand the intricacies and complexities of the nature of the L2 learner and user, especially when they are investigated under the lenses of the "monolingual bias."

Empirical research in the area of L2A up to this point, have been experimental in nature. Assessment of L2 learners' production and performance was based on different linguistic experiments, tasks or tests, evaluating the learners' L2 knowledge and proficiency in such linguistic fields as morpho-syntax, especially using grammaticality judgment tests (Birdsong, 1992, 2005; Birdsong and Molis, 2001; Juffs and Harrington, 1995; Cranshaw, 1997; White and Genessee, 1996), phonology, testing the perception and production of L2 sounds (Bongaerts, Planken & Schils, 1995; Flege, Munro & MacKay, 1995; Bongaerts, 1999; Moyer, 1999; Birdsong 2005), and lexicon, testing their knowledge of lexical diversity (Marinova-Todd, 2003: comprehensive analysis).

In these experimental studies, information on the learners' linguistic background such as Age of Arrival in the L2 country, Age of Exposure to the L2, Length of Residence, Amount of Instruction in the L2, L2 Use, and so forth, has been crucial in understanding the rate of success in the acquisition of an L2. The correlation of such factors with L2 performance data provided scientific, empirical evidence to the research question tackled, supporting or refuting a certain theory. In most of these empirical studies, the L2 learners have been compared to monolingual speakers of the target language with their performance being labeled as either nativelike (i.e., comparable to that of native speakers) or non-nativelike and sometimes even deficient. The problem of the "monolingual bias" has unfortunately been a common practice in L2 research. As Grosjean (1989) clearly points out, an L2 speaker, especially one at end-state who uses the L2 on a daily basis as a bilingual, cannot and should not be thought of, in scientific

terms, as "two monolinguals in one". However, in most empirical studies of L2 acquisition, which have mainly focused on morpho-syntax and phonology, a monolingual perspective of evaluation has been taken by researchers, judging the L2 speakers from their own point of view, without consideration of the speakers themselves and their practices with language. Unfortunately, most L2A researchers in the field have preferred this etic perspective in their studies, presenting the raw data plainly and describing the subjects' behavior without considering the data as a functional communicative tool (Pike, 1967). In other words, a subject's language sample is analyzed and labeled in a clinical way by the researcher, based on their perceived level of appropriateness and ignoring the views of the people who produced the language.

Although such an analysis is necessary, relying solely on an etic description of behavior and performance may limit the researcher's approach to the question. Without taking a multilingual perspective, one cannot possibly describe and evaluate the complexities of language use by L2 speakers appropriately. Researchers need to keep an open mind to the point of view of the language users themselves, considering what bilinguals *can* do with both their languages and how they can play with language in order to understand what they *do* with language. Dewaele (2006, 2007, 2008) defends such a mixed epistemological approach in multilingualism research, taking into account the self-assessment and opinion of the participant, as multilinguals can shed some light on their linguistic behavior. Crystal (1997) defines pragmatics as "the study of language from the point of view of users, especially the choices they make, the constraints they encounter in using language in social interaction and the effects their use of language has on other participants in the act of communication" (p. 301).

Such a pragmatic analysis of language use, taking into consideration the social aspect of L2 acquisition and use, which has been lacking in empirical studies of L2 acquisition so far, will deepen our understanding of L2 use, by avoiding judgment of an L2 performance as deficient or non-nativelike, inappropriately and unnecessarily.

We believe that the study of emotions and second language acquisition and use such as the one we undertake here can shed some light into what second language users

really do and *can* do with their languages at end state. The ultimate goal of the present study is to portrait L2 speakers in a more positive light, as "successful multi-competent speakers, not failed native speakers" (Cook, 1999, p. 204), with differences in the L2 speakers' performance perceived, not as a deficiency in their competence, but rather, as differences emanating from their multilingual mind. In this sense, any instance of non-nativelikeness found in this study should be viewed under these lenses, especially when lexical and conceptual transfer between the two languages is evident in our results.

1.1.3 Socio-cultural Theory

One linguistic domain that has been under-analyzed in the L2A literature, but is now getting more attention, is the social aspect of L2 learning, that involving issues of identity and pragmatically appropriate use of the language learned. As a matter of fact, a meta-analysis of the L2 acquisition process, taking into account psycho-social and socio-cultural variables, can contribute to an understanding of the different levels of ultimate attainment by L2 learners. Taking an interpretative approach to L2A, an analysis of the social aspects of L2 learning and use (for example, those involving identity-related influences in the acquisition process) and an understanding of pragmatics in relation to the metaphorical use of the L2 can open up new insights into the interpretation of the levels of L2 achievement at asymptote. In this line of thought, the works of Piller, Pavlenko, Dewaele, and Wierzbicka bring some much-needed new perspectives into the discussion. For example, Pavlenko and Jarvis (2001) address the issue of L2 learners *thinking like a native* by investigating the conceptual proficiency of L2 speakers and studying diverse phenomena of cross-linguistic influence such as transfer, interference, borrowing, restructuring, and L2-related aspects of L1 attrition and loss. They view the process of conceptual transfer and restructuring resulting from the L2 speakers' process of acculturation and assimilation in the L2 culture, which lead them to acquire and use the L2 for meaningful social interactions with speakers of the L2. For these interactions to be successful, a "certain amount of 'shared meaning' must exist, which can be ensured

only by invoking the appropriate concepts since 'the person can only be a meaningful entity, both to himself or herself and to others, by being 'read' in terms of the discourses available in that society'" (Pavlenko, and Jarvis, 2001, p. 298). In a psycho-social framework, evidence of L1 transfer or L2 transfer by L2 learners is not seen as deviance from the native norm, but should be understood as "meaningful entities" trying to communicate certain meanings to others while internally going through a process of conceptual change. In this case, deviance from the standard should not be considered errors, and certainly not deficiencies emanating from a supposed biological constraint.

In this respect, the Socio-Cultural Theory (SCT) of mental activity and the Second Language Activity Theory (Lantolf & Pavlenko, 1995, 2001; works of Vygotsky) allow us to view learners and the L2 acquisition process and outcome from a psycho-social perspective. According to Kasper (1997), the problem with the Anglo-Saxon scientific tradition is that "the object of study of any (social) scientific enterprise is constructed by distilling out features considered to be irrelevant to the specific goal of the given scientific enterprise" (p. 141). In addition, she points out that, for the study of second language acquisition, "researchers need to peel away the multiple and complex layers that constitute real individuals in order to focus attention on one or two features of interest to us –specifically people's identities of a 'learner' and/or a 'non-native speaker' of a given language" (p. 141). Although this view may seem highly reductionist, it proves to be a necessary move in order to understand the nature of the relationship between "real" individuals and languages other than the first. Without undermining the importance of the scientific method in explaining aspects of L2A, a more interpretative and historical approach, analyzing "real" individuals rather than idealized abstractions, may be a more informative alternative to the traditional experimental approach.

A historical-interpretative approach to the study of psychological processes which considers humans from a more holistic, concrete and less idealized perspective was proposed by the Russian psychologist L.S. Vygotsky. Vygotsky recognized two currents within psychology: surface and depth psychology. The former represented

phenomenologically-based theories assuming that mental phenomena are directly given to the person experiencing them, whereas the latter, mainly represented by Freudian psychoanalysis, viewed mental behavior on the basis of unconscious forces rooted in biological drives. Vygotsky added another unified approach: height psychology, a psychology that takes into account our biological endowments, as well as the "supra-individual world of developing human culture" (Lantolf & Pavlenko, 2001, p. 142). He acknowledged that biological factors played an important role in psychological activity but recognized that they were insufficient to explain all human ways of thinking. He argued that "to understand the specifically human mind, it [is] essential to bring meaning, sense, emotion, expressiveness, and with these, culture and history" (ibid). The SCT emphasizes the fact that our cultural history, and not our biology, endows us with our uniquely human ways of thinking. Thus, to understand the relationship between learners, that is, "real" individuals, as opposed to abstract, generalized and idealized subjects, and L2, we need to direct our attention to a particular view of people, with a history of culture and human interaction in the culturally constructed environment. According to the SCT, any kind of development, the ontogenetic development of children or the development of language, "does not proceed as the unfolding of inborn capacities, but as the transformation of innate capacities once they intertwine with socioculturally constructed *mediational means*" (Lantolf & Pavlenko, 1995, p. 109; italics are from the original authors). In contrast with the neo-nativist position, mental functioning such as logical thinking and learning arise when culture is appropriated, and to understand how these mental concepts develop, we need to understand the history of human beings as individuals, societies and cultures. Sociocultural and mental acitivity are thus bound together in a dependent and mediated relationship.

In this approach, activity theory puts an emphasis on the natural environment in which human mental activity is carried out, and this environment includes natural and culturally constructed objects, abstract ideas, as well as the socio-cultural world of human beings. Thinking and doing are not separate activities since thinking is motivated by a certain need (social, physical, psychological) and directed at an object, an artifact made

available by a particular culture (signs, words, metaphors, narratives) able to fulfill that need. While traditional approaches focus on what people are *doing*, the SCT incorporates four other factors, mainly: *how* the person is acting, the actions realized in order to achieve a goal; *where* the person is acting, i.e., in public, in a classroom, in an experimental laboratory; *why* the person is acting, i.e., the goals and motives underlying the activity; and *when* the activity is occurring. Internalization of these external actions through our biologically innate human abilities and through the ability to use culturally constructed tools and artifacts is not simply a plain copy of those actions every time they are needed, but involves a transformation of these activities as the mediation becomes private (Lantolf & Pavlenko, 2001). Taking the example of a language user,

> We can think of a native or expert use of a language as forming a functional system in which the language ceases to be a tool separable from the person but is so tightly intertwined with who the person is that to interfere in some way with their language is to interfere with the person. On the other hand, second language learners can be viewed as individuals attempting to learn how to use a second semiotic tool and thus it is much easier to distinguish the person from the tool. Becoming a proficient user of the language from this perspective is about forming a composite functional organ of person-artifact in which one can no longer determine where the person ends and the tool begins or vice versa (Lantolf & Pavlenko, 2001, p. 145).

From a socio-cultural perspective, as mentioned in the example above, activity theory for L2A entails more than the acquisition of forms and mastery of linguistic properties of the L2. L2 learners acquire new ways of mediating themselves and their relationships to others and to themselves; they create meaning in the world (inter-personally and intra-personally) through dialogic interactions by engaging in real goal-oriented activities (i.e., ability to communicate with speakers of the L2), through culturally formed motives (i.e., to study in an L2 country, or to conduct business in an L2 country, and so forth), in real circumstances. As Lantolf and Pavlenko (2001) appropriately put it, learners are "more than processing devices that convert linguistic input into well-formed (or not so well formed) outputs" (p. 145).

With respect to the process of L2A, different meanings may be assigned to the same practices in different contexts such that learners react to the same task of *learning the L2* differently and at the same time, the same learner can react to the same task differently on different occasions (Coughlan & Duff, 1994). Individual learners, as *human agents*, are in control of operationalizing the tasks as activities. Because their socio-cultural experiences, language ideologies, and the history behind the formation of their motives for this activity (studying the L2) are different, they will respond to the same task differently, meaning that they may not all have the same goal of learning the language even though they may engage in the same overt behaviors. Even at the cognitive level, they may not be engaged in the same activity.

Many recent L2 studies (Gillette, 1994; Piller, 2002; Dewaele and Pavlenko, 2003) have taken into account the implications of the socio-cultural variables in their analysis and interpretation of language acquisition. For example, Gillette (1994) thoroughly conducted case studies of successful and unsuccessful adult L2 learners through interviews, class notes, and diaries, to examine what learners do in the task of L2 learning. She found that success in learning was dependent upon the motives and goals of learning the L2. In her study, she describes the case of R, a successful learner, and J, the unsuccessful one. In the case of R, whose parents are from a francophone region of Canada, languages are significant in her life: she went to a Hebrew School at the age of 7 and remembers doing well and using it during her visit in Israel, her motivation of becoming a writer makes the French course relevant for her professional interest although she is enrolled in the course to fulfill the language requirement and despite the negative experiences of the previous semester. R consistently tries to use what she learns and consequently makes progress in her language ability. On the other hand, for J, languages (and university study overall) are not significant to him and the only reason of his enrollment is to fulfill the language requirement. The negative experiences of the previous semester and the insignificance of language study in J's life explain his disinterest and lack of motivation: doing class assignments are described as horrible and he would rather watch NCAA Basketball Tournament than doing French homework.

Thus, despite the similar negative experiences in previous semesters and the same motive of fulfilling the language requirement, one has the goal of learning the L2 and the other has not, which may not seem evident at first glance to an outside observer.

This kind of interpretative perspective on language acquisition, taking into account the history of the learner and the social contexts of the acquisition process, can widen our understanding of the different performances of L2 speakers, especially when they are accepted as "human agents" (Lantolf & Pavlenko, 2001), and not as machines converting linguistic inputs to exact outputs. Unfortunately, this kind of interpretative approach has been under-represented in the L2A literature in general. This study aims to examine L2 acquisition and outcome under these lenses.

1.1.4 The Critical Period Hypothesis and nativelike ultimate attainment

One of the most widely debated issues in second language acquisition (L2A) research concerns the existence of maturational constraints, or more specifically, of a critical period for language acquisition. The term *critical period* for language acquisition refers to a neurologically-based, developmental time span, roughly from age 2 and ending around the onset of puberty, during which it is possible to acquire a language to a normal level in the case of an L1, and to a nativelike, highly successful level in the case of an L2. Once this limited period is over, the ability to learn language declines and the average language learner is less likely to achieve complete, full mastery in the target language. For L2A, the critical period account has often been offered as an explanation of the age-related differences between younger and older learners of a target language. Whereas younger learners systematically reach full, nativelike level of proficiency, adult learners have more difficulty in the learning process and typically do not reach nativelike ultimate attainment. Consistent with this maturational view are age effects found among pre-pubescent L2 learners but not for post-pubescent adult learners. Also supporting a maturational account on the limits of L2 attainment is the absence of or near-zero case of late L2 learners reaching nativelike proficiency levels at the end-state of L2 acquisition.

Most of the early work in the seventies and eighties have tried to support the maturational view for both of these generalizations. Patkowski (1980, 1990) and Johnson and Newport (1989), among others, have accordingly proposed an age-related limitation on the ability to acquire full mastery in an L2. For example, from their grammaticality tests on Korean L1s learning English as an L2, Johnson and Newport (1989) found a discontinuity for the effect of age for correct grammaticality judgments around puberty, which was taken as evidence for the existence of a critical period.

However, more recent studies (Birdsong, 1992; Birdsong and Molis, 2001; Birdsong, 2003; Flege, 1999; Flege, Yeni-Komshian and Liu, 1999; Bialystok and Haluka, 1999; Marinova-Todd, 2003; and the works of Bongaerts and his colleagues) have either found post-maturational age effects or have attested nativelike performance in late L2 learners, that is, their performance was indistinguishable from that of native speakers of the L2. For example, Birdsong and Molis (2001) replicated Johnson and Newport (1989)'s study with Spanish L1s and found a negative correlation between age and accuracy that continued after the critical period. Another study by Flege et al. (1999) found evidence for and against the CPH: Korean L1s learning English as an L2 showed a discontinuity in the effect of age on accuracy on tests of phonological production, but this discontinuity did not coincide with the end of the proposed critical period. However, in tests of syntactic production, they did show a discontinuity that coincided with the end of the presumed critical period.

Together, these studies (and others reviewed in more detail in the next chapter) provide conflicting evidence regarding the existence of a critical period for second language acquisition, suggesting that an L2 can be acquired to nativelike levels, in at least some respects.

1.2 PURPOSE OF THE STUDY

The purpose of this study is two-fold. First, it attempts to add to the literature of L2 ultimate attainment of lexical acquisition by investigating the adult L2 French and L2

English learners' lexical performance in a specific pragmatic domain, that of expressing emotions. With this respect, the present study examines the use of emotion vocabulary and discourse by late L2 learners. Since the main focus of the research is on the upper limits of L2 attainment, i.e., what learners *can do* at the end-state of L2 acquisition, the study of the linguistic expression of emotions is justified in the fact that expressing (and understanding) emotions in a second or foreign language is, according to Dewaele (2008), and probably many immigrants who have moved to a foreign country would agree, the most challenging (or at least, one of the most challenging) task in the L2. The importance of expressing one's own emotions and understanding the emotions of others is well observed by Fussell (2002):

> The interpersonal communication of emotional states is fundamental to both everyday and clinical interaction. One's own and others' affective experiences are frequent topics of everyday conversations, and how well these emotions are expressed and understood is important to interpersonal relationships and individual well-being (p. 1).

However, the stakes are extremely high in emotional exchanges between monolingual native speakers, but even more so for non-native speaker interactions: the potential loss of face to the speaker and the interlocutor are considerable (Deweale, 2008) if an emotion felt is not expressed appropriately, or if the interlocutor's emotion is not understood correctly. As discussed in Chapter 3, emotional expression for non-native speakers requires more linguistic processing while searching for words, grammar rules and pragmatic rules, metaphoric expressions, etc, which is automatic for native speakers. Consequently, less attention is given to the content of the communication and miscommunication and misunderstanding may occur. Another challenge for non-native speakers in L2 emotional exchanges is the fact that their conceptual representations of emotion words and scripts in the L2 may be incomplete, and that they may not have the correct and necessary linguistic resources, such as using metaphors and other figures of speech, that are crucial in conveying subtle meanings and in describing emotional experiences in more detail and nuance (Gibbs et al., 2002). Considering the socio-cultural

differences in how emotions are conceptualized and the resulting differences in how emotions are expressed in different cultures (Besemeres, 2004; Markus and Kitayama, 1991, 1994; refer to Chapter 3 for a complete overview), communicating emotions such as love and anger, for example, and recognizing their emotion scripts in a foreign language may be extremely challenging for non-native speakers and even immigrants who have resided in the foreign country for long periods of time. Ye (2004), for instance, a Chinese scholar who emigrated from China to Australia in the 1990s, describes her struggles with learning and assimilating to the English emotion scripts of endearments and affection. Whereas in the Western culture, feelings are expressed overtly, in the Chinese culture, affection is shown more by the amount of care and concern, i.e., what one does for the other. Although she understood the differences in Chinese and English expression of emotion, she felt vulnerable while trying to express her feelings in her L2, being aware of the constant danger of misinterpretation and misunderstanding.

So, the first purpose of the present study is to examine the use of emotion vocabulary and discourse by late L2 learners in order to determine what they can do at the upper limits of achievement, considering all the challenges involved in expressing emotions in an L2.

The second purpose of the study is to explore, at the discursive level, rather than the lexical, how adult L2 French and L2 English learners talk about emotions in narratives of personal stories. The study intends to look specifically at the frequency of use of stance markers and the types of stance marking based on different stance categories, including certainty and doubt evidentials, emphatics, hedges, and modals. Also analyzed are some narrative discourse features, such as the use of figurative language, reported speech, epithets, depersonalization and amount of detail. This will give us insight into how French-English and English-French bilinguals *do emotions with words* in their L2 in the context of a narrative. As Ochs and Schieffelin (1989) point out, emotions can be expressed not only through the lexicon, but also through grammatical and discourse structures: “one cannot argue, for example, that syntax exclusively serves

logical functions while affective functions are carried out by intonation and the lexicon. Affect permeates the entire linguistic system" (p. 10).

This study is *not* intended to take a discourse analytic approach of bilinguals' narratives. In other words, we will not be looking at how emotions are constructed in discourse through interaction with interlocutors. In this study, interaction between the speaker (i.e., the monolingual or bilingual) and the listener (i.e., the interviewer) was minimal and the speakers' narratives were similar to extended monologues, in which speakers took long, extended turns of talk, rather than (co)-constructed dialogues. In a discourse analysis of stancetaking in narratives of emotions, one would be investigating the dynamicity and interactional nature of the phenomenon (thus, the verb stance "taking"). Inter-speaker and intra-speaker dynamics of stancetaking would be the focus in such a study (more on this in Sections 3.6.3 and 7.5). Our study, however, takes a quantitative approach to stancetaking and looks at the culturally salient use of stance markers (Precht, 2003b) in a corpus linguistic framework. Much of the research on stance in discourse has taken on a qualitative approach, as discussed earlier. The approach taken in this study follows that of Biber and Finegan (1988, 1989) and Precht (2003a, b) who analyzed stance markers qualitatively (categories of stance), as well as quantitatively (frequency of stance markers in literary texts and in British and American English, respectively). Within such a corpus linguistic approach, what the study *does* intend to do is to analyze the use (frequency and lexical choice) of stance markers in narratives of emotional experiences in monolinguals and bilinguals, rather than the construction of stance in L2 discourse.

In this respect, the socio-cultural framework discussed in Section 1.1.3 and applied in this study is mainly intended to give a basis for interpretation of the results pertaining to comparisons between monolinguals and bilinguals. The socio-cultural approach of learning and development, and understanding how human mental functioning is tied to cultural, institutional, and historical settings (and not only to biological constraints) can broaden our understanding of language (i.e., the mediating

tool) learning and use by bilinguals. In sum, although the dissertation takes on ideas of the SCT (mainly, the interdependence between individual and social processes in the construction of knowledge, language acquisition, discourse acquisition, etc…), it does *not* follow a purely socio-cultural framework of analysis per se, in that it will not look at language/discourse co-construction.

1.3 SUMMARY OF PREVIOUS RESEARCH ON EMOTIONAL EXPRESSION

Although research on L2 emotional expression is in its infancy, thanks to the works of Pavlenko and Wierzbicka in Russian and English, we do have some information on the English emotion lexicon and discourse:

- Value of emotionality in discourse: English does not value emotions and their expression in discourse as highly as Russian does. In Russian, emotions are conceptualized as a key part of human inner life and the life of the soul, whereas the mainstream Anglo culture appears to value control and composure, reflected in words and expressions as 'upset' or 'to deal with one's emotions', which imply an *ab*normal state or a loss of control (Wierzbicka, 1992, 1999). Also, Anglo-American culture values and encourages the display of good feelings that one may not necessarily feel, and the suppression of bad feelings whose display may be seen as serving no useful purpose, damaging one's image and being unpleasant to other people (Goddard, 2002). Support for these claims is found in Pavlenko (2002). Given the same stimuli, Russian and English narrators used similar numbers of emotion word tokens (lexemes), but the Russian narrators used 1.5 times as many different emotion words (lemmas) as the Americans. Russians monolinguals also exhibited more lexical diversity in their choices of nouns, verbs, and adverbs, and priviledged more emotionally-charged words, such as 'grief', 'wrath', and 'sadness', when Americans talked about 'anger' for the same stimuli.

- Distribution of emotion words across morphosyntactic categories**:** English has emotion nouns (e.g., *joy, anger*), adjectives (e.g., *angry, upset*), adverbs (e.g., *sadly, happily*), transitive verbs (e.g., *to upset someone, to frustrate someone*), and only a few intransitive verbs (e.g., *to worry, to doubt, to rejoice, to fume, to grieve, to rage*) that are losing ground in modern English (Wierzbicka, 1992).
- Preferred pattern of emotion description: English favors adjectives or pseudoparticiples, such as *upset, sad, worried*, or *disgusted*, that refer to inner states. They are often used with copula verbs, such as the state verb *to be*, change-of-state verbs *to become* and *to get*, and perception verbs *to seem, to appear, to look,* and *to feel*. The preference for an adjectival pattern is reflective of the English conceptualization of emotions as passive states resulting from external or past causes (Wierzbicka, 1992). As a result, emotion verbs (that tend to be expressed in action, such as crying or sighing for the emotion of worrying) are disappearing from modern English, as the Anglo culture encourages people 'to be glad' rather than 'to rejoice' or 'to be angry' rather than 'to fume' or 'to rage'.
- Syntactic constructions: impersonal constructions, such as *It is difficult for me to disagree*, are uncommon in English emotional expression (although very prominent in Russian), whereas syntactic constructions involving combinations of state verbs (to be), change-of-state verbs (to become), and perception copula verbs (to look, to feel) with emotion adverbs and adjectives are prominent. Constructions with *to look like* are also very common in English.
- Language- and culture-specific emotion words: English has some emotion words that have no translation equivalents in other languages. The words *fun* or *frustration*, for example, have no single-word equivalents in Russian, so that expressions such as *We were having fun* would be rendered in Russian as something equivalent to *It was joyful to us.*

Considering the limited research done in the area and the limitations that have been acknowledged in previous studies of L2 and emotions (which will be presented in more detail in Chapter 3), I believe that the results of the present study can bring new and informative insights into the study of emotions in English-French, French-English late bilinguals and with regards to L2 eventual attainment.

1.4 RESEARCH QUESTIONS

Taking the findings from previous studies into account, the goal of this dissertation is to address the following research questions:

1) Concerning the vocabulary of emotion, what is the range of emotion lemmas (measuring lexical diversity) and the frequency of lexemes, i.e., word tokens (measuring lexical productivity) used in L1 French and L1 English? How do L2 learners of French and L2 learners of English perform differently or similarly in their use of emotions lemmas and lexemes in their L2 and L1?
2) What factors (L2 proficiency, amount of L2 use, degree of L2 identification, L2 perception) affect the use of emotion lemmas and lexemes in L2?
3) Concerning the morphosyntactic categories of emotion words, what is the preferred pattern used for emotional description by native speakers of French and English? How do L2 learners of French and English perform differently or similarly in their L2 and L1? Given that the use of certain morphosyntactic patterns reflect how emotions are conceptualized in a language, do the performance of L2 learners show evidence of L1 or L2 conceptual transfer?
4) Concerning the discourse of emotions, how do native speakers of the L2 and L2 learners discuss emotion states, judge, or assess their propositions with regards to stance markers (evidentiality, hedges, emphatics, and modals)? What are the proportions of stance in the stance categories investigated for the monolinguals and bilinguals? How do they compare to each other?

5) From a discourse analysis perspective, how do native speakers of the L2 and L2 learners construct emotions in discourse with resptect to the details of the emotions described, the use of figurative language, reported speech, epithets, depersonalization and other linguistic devices?
6) Overall, what are the upper limits of L2 attainment in emotion lexicon and discourse? Is there evidence of nativelike or near-native performance in any of the areas analyzed?

1.5 OUTLINE OF THE DISSERTATION

Chapter 2 provides a more in-depth look at the Critical Period Hypothesis and its challenges as it relates to levels of ultimate attainment in L2. It also discusses, in a broader sense, the issue of what late L2 learners can do at end-state, based on instances of nativelikeness in multiple areas of the L2.

Chapter 3 considers the study of emotions relating to language, especially a second language. The nature of emotion is first defined, as well as other terminologies related to the concept. The relationship between emotion and culture, emotion and languages and emotion and L2, specifically, will be examined with ample evidence from previous studies on emotions. A review of the L2 discourse of emotion will be presented here a well.

Chapter 4 presents the methodology of the study. An overview of the design of the study is explained, first, with information on the procedure of data collection and on the participants. Then, measures of the data and data analysis are presented.

Chapter 5 presents the first set of results for the use of emotion words, whereas Chapter 6 provides the results for stance markers.

Finally, Chapter 7 summarizes the results of both lexical and discoursal features of expressing emotions in an L2 and discusses their relevance to the previous body of research. Background characteristics of some nativelike L2 learners are provided. In the

final sections, limitations of the present study are presented, as well as directions for future research.

Chapter 2: Age, L2 Ultimate Attainment, and The Acquisition of L2 Lexicon

Whereas younger learners of a second language generally reach a level of proficiency comparable to that of native speakers of the L2, the majority of adults, from university students in a second or foreign language classroom to immigrants to a new language environment, usually have a more difficult time perfecting an L2. In fact, whether adult L2 learners can even achieve nativelike levels of performance in the L2 is debatable. Most research on second language acquisition focus, not on whether differences between L1 and L2 acquisition exist (because they clearly do), but on the extent of these differences, the role age plays in determining the end-state of acquisition of an L2 learner, whether a critical period for nativelike attainment in L2 exists, and whether L2 nativelike acquisition is at all possible for individuals who being learning after puberty.

While the majority of second language acquisition studies have focused on phonology and morpho-syntax, the acquisition of L2 lexicon has received little attention and what we know from the few existing studies in L2 lexical acquisition has yielded inconclusive results on the question of age and L2 lexicon. Generally, whereas in naturalistic contexts, younger learners do not perform better at the initial states of acquisition compared to older learners, they do catch up as the learning progresses, up to a level comparable to older learners or to a nativelive level (Snow and Hoefnagel-Höhle, 1978; Swain, 1982; Snow, 1983; Cummins and Swain, 1986; Harley, 1986). However, in formal instructional settings, older learners have shown to perform better and faster than younger learners in the long run (Stankowski Gratton, 1980; Asher and Price, 1967/1982; McLaughlin, Ostershout and Kim, 2004; Brustall et al., 1974; Oller and Nagato, 1974; Griffin, 1993; Singleton, 1995, 1999). Similar inconclusive results are evidenced from studies of age and L2 ultimate lexical acquisition, with some supporting the existence of maturational constraints (Hyltenstam, 1988/1992; Kim, 1997; Spadaro, 1998; Lee, 1998,

quoted in Long, 2007), and others contradicting the existence of a critical period (Bahrick et al., 1994; Marinova-Todd, 2003a).

This dissertation is intended to add to the body of research on L2 acquisition of lexicon, especially the acquisition of emotion words and the possibility of L2 late learners to reach nativelike levels of performance at end-state. Whereas L2 emotion words will be discussed in more detail in Chapter 3, here, we review the literature on age effects in L2A in general, and focus on studies dealing with the ultimate attainment of L2A at end-state.

The first part of the chapter presents an overview of the debate on the Critical Period Hypothesis for language acquisition and its challenges. The second section focuses on the causes of age-related effects on L2A. The third section looks at some of the criteria needed in order to argue for the existence of a critical period, and the fourth section provides evidence against such a claim by discussing nativelike ultimate attainment by late L2 learners in the areas of pronunciation, morphosyntax, language processing, and even "across-the-board" proficiencies. The next section address the question of what late L2 learners *can* do at end-state, by looking at the upper limits of adult L2A. The sixth section, then analyzes the factors affecting the different outcomes of L2A at end-state. The next three sections focus on L2 lexical acquisition and the relationship between age and L2 ultimate attainment in lexicon.

2.1 AGE EFFECTS AND THE CRITICAL PERIOD HYPOTHESIS

In the late fifties and sixties, Penfield and Roberts (1959) and Lenneberg (1967) were the first to propose the existence of a critical period for language acquisition, around puberty, such that language learning occurring past this age would be greatly limited, if not impossible. This Critical Period Hypothesis (henceforth, CPH) was originally formulated for first language acquisition based on three types of evidence:

- evidence from feral and abused children who grew up without being exposed to human language in childhood and how did not acquire language normally after they were found,
- evidence from deaf children whose development in spoken language stopped after puberty,
- evidence that children with aphasia recovered much better than adults with aphasia.

The most cited example of an individual whose acquisition of first language was delayed and impeded is the case of Genie (Curtiss, 1977), who, spent most of her life, up to age 13, locked in her bedroom, abused and deprived of language. After she was found and removed from that environment, she was not able to acquire language to a normal, nativelike level; although she was able to learn some new lexical items, she was never able to perform normal English syntax. As this evidence suggests, it is generally accepted among psycholinguists and researchers that a critical period does exist for first language acquisition (although it may be argued that factors unrelated to language input, including physical and emotional abuse, lack of nutrition, and developmental disorders, may certainly have played a role in her language deficit, so that this particular and other similar cases may not be fully and strongly supported by the CPH alone).

When the claim of the critical period is extended to L2A, however, there is much less agreement. For some, (Johnson and Newport, 1989; Patkowski, 1980, 1990; Long, 1990, 1993; Eubank and Gregg, 1999; DeKeyser, 2000; Scovel, 2006), the negative correlation between the age at which L2 acquisition begins and the level of ultimate attainment in the L2 is due to maturational constraints in language learning. For others, such as Birdsong and Molis (2001), Bialystok and Hakuta (1999), and Flege (1987, 1999), for example, the critical period account for the acknowledged age-related effects does not hold.

2.1.1 Implications and predictions of the theory on L2A

Lenneberg (1967)'s formulation of the CPH, linked to the acquisition of a second or foreign language, focuses on age limitations on the possibility of reaching nativelike levels of ultimate attainment in an L2. He claimed that:

> The incidence of "language learning blocks" rapidly increases after puberty. Automatic acquisition from mere exposure to a given language seems to disappear after this age [puberty] and foreign languages have to be taught and learned through a conscious and labored effort. Foreign accents cannot be overcome easily after puberty. However, a person can learn to communicate at the age of forty. This does not trouble our basic hypothesis on age limitation because we may assume that the cerebral organization for language learning as such has taken place during childhood, and since neutral languages tend to resemble one another in many fundamental aspects, the matrix for language skills is present (Lenneberg, 1967, p. 176).

According to Lenneberg, the critical period corresponds to a neurological, developmental change in the brain, characterized by heightened plasticity and progressive lateralization of the brain. After this period of heightened sensitivity, "the neural substrate that is required for language learning is not fully available" (Birdsong, 1999, p.3) and the process of lateralization of the language-processing abilities is complete such that nativelike ultimate attainment is not possible after the closure of the critical period. The loss of neural plasticity in the brain has been given as an explanation to the loss of the ability to learn to full mastery. The cerebral plasticity refers to "the ability of neurons to make new connections, and varied connections depending on the stimulus" (Eubank and Gregg, 1999, p. 69). Furthermore, "the strenghtening of connections between neurons probably represents the neurological basis for learning," including language acquisition (Pulvermuller and Schuman, 1994, p. 691). Due to this loss of plasticity in the brain, individuals who start learning a language after the critical period has passed, that is, after puberty, will only rarely, if ever, reach a nativelike level of proficiency at end-state, whereas learners who started before the end of the critical period, that is, before or at puberty, will typically reach nativelike-levels of attainment.

As stated, the CPH concerns the ability to reach nativelike attainment (Birdsong, 1999; Eubank and Gregg, 1999). It does not threaten the ability to learn an L2 to some level after the so-called critical period. As Lenneberg (1967) comments, "most individuals of average intelligence are able to learn a second language after the beginning of their second decade" (p. 176). Post-pubertal language acquisition for adults, who have developed "language learning blocks" and who no longer have some of the language learning abilities that they used to have as children, is claimed to be far less successful than pre-pubertal language acquisition. Generally, the CPH implies the following (Bialystok and Hakuta, 1999): first, at end-state of L2A, nativelike ultimate attainment is guaranteed for pre-critical period learners. As the authors point out, "learning during a critical period is assured, similar across individuals, normatively described, and probably governed by endogenous factors" (p. 164). Second, differences will be apparent between these learners and those who learn an L2 past the critical period in level of ultimate attainment: "learning outside the critical period is different in form and success, especially in that it would be less certain and more erratic in outcomes" (ibid, p. 164). Thus, a clear discontinuity should be evident between these two types of learning such that the timing of that discontinuity should reflect the closure of the critical period. According to this hypothesis, the end of the critical period or the turning-point age for these differences between children and adults is said to be around puberty, at around age 12-13. However, not only this cut-off age, at which the critical period comes to an end, and after which nativelikeness in an L2 is impossible, but the onset age of the critical period as well, vary from study to study (see section 2.1.2). This lack of consensus on the delimitation of the critical period seems to be problematic for a claim that uses the CPH as an explanation for age-related differences in L2 attainment between children and adults.

2.1.2 Critical issues relating to the CPH

Because of the numerous ways the critical period for language acquisition has been understood and interpreted, it is important to discuss some of the issues and use of terminology in the literature since different researchers use different terms with different meanings. The CPH, stated as such, concerns only the outcome of L2A, the final state or end state of the language acquisition process, not the rate of acquisition. Other terms which are interchangeably used to refer to this final product of L2A are *ultimate attainment*, *steady state*, and *asymptote* (Birdsong, 2006). The level of attainment may or may not be nativelike and *ultimate attainment* should not be equated with *nativelike proficiency*. Ultimate attainment may cover any range of asympotic proficiency, from non-nativelike to near-nativelike to nativelike and any range in between. It is important to note also that an L2 learner does not reach ultimate attainment for every aspect of the L2 at once. They may reach their end-state for pronunciation before syntax. In fact, the period of heightened sensitivity for nativelike attainment is believed to be shorter for pronunciation than for syntax, resulting in differences in ultimate attainment between the two linguistic domains (Birdsong and Paik, 2008). Even within a linguistic domain, a learner may reach the end state for certain sub-areas of that domain before others.

With regard to the plausibility of the CPH, problems of characterizing and interpreting the CP have caused some confusion in the field as to what is affected by the CP, the time delimitation of the CP itself, and what causes it, such that the CPH cannot possibly be considered as a scientific hypothesis: "the very fact that there are such manifold and mutually contradictory versions of the CPH itself calls into serious question the notion of a CP in this domain" (Singleton, 2005, p. 269). Taking the example of the areas affected by the CP, while Lenneberg (1967) sees the CP as applying to language acquisition in general, Scovel (1988) suggests that it is limited to pronunciation. As to the underlying causes of the CP, although most researchers agree on the neurobiological account of decreased cerebral plasticity, lateralization of the language functions (Lenneberg, 1967), and localization of specific language sub-functions (Seliger, 1978),

others suggest a cognitive maturational account, emphasizing the role of general cognitive factors (DeKeyser, 2000, 2003 implicit and explicit learning) such that the capacity for implicit learning of complex abstract systems (including language) is diminished abruptly after puberty. Still others propose an affective-motivational account, such as the Acculturation Model (Schumann, 1978), which claims that success in L2A is largely dependent on the degree of social and psychological distance between the learner and the target language and culture. Children around the age of ten are less likely to be hostile to other cultures, i.e. more likely to integrate easily in the L2 culture, thus acquiring the L2 to a nativelike level.

In his overview of the CPH, Singleton (2005) finds at least a dozen versions of the CPH in the research field while Birdsong (1999) finds no less than six major variants of the CPH. Such different interpretations and lack of consensus on the basic parameters of the hypothesis makes it impossible to accept it as a scientifically well-grounded theory. DeKeyser and Larson-Hall (2005) reprimand such criticism claiming that the CPH is rejected because of the specific interpretations of it, rather than the core idea. They prefer the broad interpretation proposed by Lenneberg (1967) that does not refer to the causes: the CPH has to do with "automatic acquisition from mere exposure" before puberty and that ability seems to disappear after this age (1967, p. 176). For DeKeyser and Larson-Hall (2005), the hypothesis boils down to the fact that young children learn implicitly through mere exposure whereas this "mechanism is relatively limited with older adolescents and adults" (p. 89).

As to the ages delimiting the span of the CP, various suggestions have been given in the literature. Lenneberg (1967) originally proposed the onset to be at age 2, when syntactic complexity is developed (with the beginning of the lateralization process of the hemispheres, i.e., the specialization of the dominant hemisphere of the brain for language functions), whereas others suggested an onset at 6 months when sensitivity to phonetic categories is developed. Still others have suggested that such a period even begins at birth, when sensitivity to segmental and prosodic distinctions has been reported (Hyltenstam & Abrahamsson, in press, b). Singleton (2005) provides a clear summary of

the range of proposals given for the CP offset. Lenneberg (1967) originally proposed an offset point for the CP at puberty, coinciding with the completion of the hemispheric lateralization process. Other researchers proposed an earlier offset of the phonetic/phonological CP acquisition on different grounds. Krashen (1973) believed the end of the critical period to be well before puberty, at age 5 or earlier. Seliger (1978), for example, argued that, as well as a lateralization process, there is a localization process by which the phonetic/phonological functions are localized by puberty whereas the syntactic functions are localized subsequently, thus, still acquirable later in life, suggesting a theory of multiple CPs for different language functions. Scovel (1988) also distinguishes pronunciation from other domains of language, claiming that it is the only area affected by age effects because it has a "neuromuscular basis" and does not have a "physical reality" (p. 101). He set the offset age at age 12, after which L2 learners will not be able to pass as native speakers phonologically. Johnson and Newport (1989) suggested two maturational phases, from age 1 to 7, particularly favorable for language learning, then from 7 to puberty, during which the language learning capacity declines considerably. Long (1990) proposed the offset of phase 1 to be at age 7 but divides the offset of phase 2 for phonetics/phonology at age 12 and the offset of phase 2 for morphosyntax at age 15. Ruben (1997) radically proposed the CP to be over at age 1, for phonetics, at age 4 for syntax, and age 15 for semantics. Hyltenstam and Abrahamsson (2003) suggested that the language learning mechanism quickly deteriorates after birth, such that nativelike proficiency in a second language is unattainable. Overall, from the interpretation of empirical studies, it is generally accepted that puberty corresponds to the end of an offset (although the exact age is not agreed upon).

Congruent with or as an explanation of the varying ages of onset and offset, multiple critical periods have been proposed by several researchers (Eubank and Gregg, 1999; Long, 1990) who argue that various aspects of the L2 are subject to different critical periods. In other words, "the decline in learners' ability to acquire a native-sounding pronunciation may have different causes and show different age effects compared to the ability to acquire a nativelike mastery of grammar" (DeKeyser, 1999, p.

501). The plausibility of the existence of multiple critical periods for linguistic competence, with different time courses, is emphasized by Eubank and Gregg (1999). For them, Language itself does not exist; rather, it is a *cover term* for the sub-components that are actually in play when we talk about language. Thus it is these modular sub-elements that are subject to critical periods: "there is no critical period for language acquisition, because there is no such thing as Language for there to be a critical period for" (p. 66). Thus, according to them, there may be a critical period for syntax or for phonology or it may even be the case that there are different critical periods for different areas of syntax, and different critical periods for different areas of phonology. According to Seliger (1978) and Walsh and Diller (1981), there is not one critical period affecting all aspects of language at the same time but many critical periods, each affecting different language abilities, the ability to master a native accent in a foreign language being the first to be lost, around the onset of puberty. Thus, different ages of acquisition may correlate differently with the highest levels of ultimate attainment in different areas of the L2. For example, an upper limit has been suggested for phonology if the acquisition begins at age 6, and at age 15 for morphology and syntax (Long, 1990). However, it is also suggested that the age of acquisition of 6 or 7 constitutes the upper limit for morpho-syntax (Johnson & Newport, 1989).

As a weaker version of the CPH, some researchers who prefer to take moderate positions defend a Sensitive Period Hypothesis (SPH), which accounts for the inter-individual differences between the ages of onset and offset. Whereas the critical period, or the "window of opportunity" (Schachter, 1988) corresponds to a well-defined temporal span bounded on both sides, during which maturation is thought to take place, the sensitive period represents "a progressive inefficiency of the organism or a gradually declining effectiveness of the peripheral input" after a certain time (Eubank & Gregg, 1999, p. 68). Sensitivity is thought to decline more gradually, over a longer period of time, rather than before puberty. Unlike the critical period, sensitivity does not decline at a fixed point in time; instead, it is thought to *fade away* over a longer period of time, covering late childhood, puberty and even adolescence, showing variability of attainment

at end-state. Furthermore, the SPH emphasizes that "language acquisition might be more efficient during early childhood but [is] not impossible at later ages" (Marinova-Todd, Marshall, & Snow, 2000, p. 10). Thus, the SPH does not result in an all-or-nothing (nativelike versus non-nativelike) event regarding the attainment at end-state; rather, it shows variability in outcome. Although the distinction between critical and sensitive periods has generally been acknowledged, in the literature, the two terms are used interchangeably. For Birdsong (1999), the use of the term 'critical period' encompasses formulations of the sensitive period as well, incorporating both the dimensions of gradualness and inter-individual variability. Eubank and Gregg (1999) suggest that "this is like the distinction between a mountain and a hill; it is of about as much usefulness, given the extreme difficulty in drawing the line between the two phenomena in practice" (p. 68). The difficulty in making a clear distinction between the phenomena led researchers to use the term critical period in its more widely accepted sense.

2.2 CAUSES OF AGE-RELATED EFFECTS IN L2A

Based on the current state of research, age effects are significant in L2 ultimate attainment. However, the claim that the observed age effects are due to maturational constraints or a biological critical period on L2A is controversial. As Birdsong (2009) points out, what has been referred to as the "age factor", i.e., the end-state differences between early L2A and late L2A, linked to AOA, undermines the range of neural, cognitive, attitudinal, experiential, social factors, prior L1 knowledge, and other possible factors that distinguish the end results of the two groups of learners: "it is inappropriate to lump together, for example, neurobiological changes over increasing AOA with qualitative and quantitative changes in linguistic exposure, or with changes in attitude toward native speakers of the target language" (p. 404). We will discuss these other attitudinal, social, experiential factors in section 2.6. It is, thus, more accurate to refer to age effects as age-related effects, or even more accurately, as AOA-related effects (since

the literature operationalizes the age factor as age of immersion). But because most researchers do not distinguish between those terms, they are used here interchangeably.

2.2.1 The CPH as a causal explanation

As many studies on the effects of age on L2 acquisition have suggested, a relationship between age of acquisition (usually operationalized as AOA) and level of L2 ultimate attainment is not denied. Bialystok and Hakuta (1999) observe that there is a co-occurrence between two events: "the age at which a person starts learning a second language corresponds in some way to the ultimate success that the person will attain after years of having used that language" (p. 162). This co-occurrence is usually characterized as a negative correlation between AOA and ultimate level of proficiency in the L2. In this regard, the CPH is given as a causal explanation for the differential success in L2A by younger and older learners. The cause of the variability in achievement as a function of age is attributed to the maturational changes that occur in the brain which affect the outcome of L2A.

However, as Bialystok and Hakuta (1999) point it out well, a co-occurrence of two events, or a correlation between two factors does not entail a relation of causality between the two factors. In other words, in statistical terms, "there may well be a correlation between age of initial learning and ultimate achievement, but it does not follow that age is a causal factor in that relation" (p. 162). The mere evidence of correlation is not enough in explanations of causality. It is true that younger learners are generally more successful with respect to ultimate attainment; it is also probably the case that there are neurological differences between the brains of younger and older learners. However, these two observations do not necessarily give evidence that age of learning is the cause of the differential success between the two groups of learners or that a critical period even exists. According to Bialystok and Hakuta (1999), linguistic and cognitive factors are the real causes of these differences. Age, in this relation, is only a separate, interfering factor, with no causal weight. As they suggest, "age intervenes in the effect

that linguistic and cognitive factors have on success in second language acquisition. Therefore, correlations between age and success are spurious because the relation is actually reflecting the effects of these linguistic and cognitive factors" (p. 166).

Another related point worthy of discussion is the fact that, as several researchers have suggested (Flege, 1987; Flynn & Manuel, 1991), the CPH represents an "a priori" assumption about the causes of differences between younger and older learners. It "appears" to give an answer to the basis of the inherent differences between L2 learners of different ages, but it does not constitute a "testable hypothesis". According to Flege (1987), it would be difficult or even impossible to control for all the potential confounding variables in age-related effects, so it is probably impossible to provide behavioral evidence, solely based on age, to support the existence of a critical period. Moreover, as Flynn and Manuel (1991) point out, a draw-back from assuming the effects of a critical period on L2A is that "other possible explanations for age-differences in L2 acquisition have not been adequately explored" and even that "possible contributions to age-related differences are under-explored" (p. 125, 127). Flege (1987) claims that accepting the CPH "may impede the development of specific hypotheses that *can* be tested" (p. 172). For example, in the acquisition of L2 phonology, the effect of processing on L2 production can be examined. One hypothesis that could be tested, in this regard, is that children pronounce an L2 better than adults because they tend to process speech in an auditory mode, rather than in a phonetic mode (Flege, 1987). It could also be tested whether children tend to develop new phonetic categories as a result of exposure to L2 sounds that are acoustically non-identical to L1 sounds, in which case, it would explain why children pronounce L2 better than adults. The effects of external variables on ultimate attainment of L2A are also testable hypotheses on the differences in outcome by children and adults. Several non-biological factors, such as motivation, experiences with the L2, degree of L1 representation and so forth have been identified to affect L2A.

2.2.2 Sources of age-related effects

Birdsong (2009) present several sources of age-related effects, which can be classified into four major categories: neurobiology, neurocognition, cognitive development, and L1 entrenchment (see also Herschensohn, 2007, and Singleton and Ryan, 2004).

Neurobiological sources of age-related effects relate to the decline in plasticity, such that once the brain has lateralized during acquisition of L1, not enough plasticity is left to restructure and accommodate an L2. Lenneberg (1967) suggested that the end of lateralization of brain functions leads to a sharp decline in plasticity, thus leading to age effects. Long and Pulvermüller and Schumann (1994) explains the cause of the reduction of plasticity by the process of myelination. Axons that are covered in myelin speed up electrical transmission; however, plasticity is reduced in areas of the brain that are densely myelinated and growth of neighboring neurons is inhibited, reducing the formation of new synapses that are associated with language learning. Pinker (1994) proposed a "use it, then lose it" explanation of language learning ability: the brain is genetically programmed to dismantle the neural structures used in language acquisition once they have served their purpose, that is, once L1 has been acquired.

Neurocognitive sources of age effects are not specific to language per se, but are due to age-related neurological changes in the general cognitive faculty. For example, it is known that brain volume shrinks over age, levels of neurotransmitters decline over age as well, and processing speed, cued and free recall and working memory also decline over age (Cabeza, Nyberg, and Park, 2005). Ullman (2005) suggests that the neural mechanisms used in procedural learning (used for the computation of syntactic and motoric gestures) are more affected by age than those used in declarative learning (used for the acquisition of lexical items, as well as facts, names, lists and dates). Under his procedural-declarative model of language processing, early learners would rely on highly automated rule-based processing, whereas late learners would rely more on lexical memory to store and retrieve morphologically irregular forms.

Sources of age-related effects relating to cognitive development is based on Newport (1990)'s "less is more" claim that post-adolescents' large working memory capacity actually makes acquisition incomplete because they process too much linguistic information at once, whereas children who have a smaller short-term memory capacity so that they can process bits of information at a time and tract the acquisition process better. In the Chomskyan framework, the possibility that access to Universal Grammar (UG) declines with age, resulting in non-nativelike attainment for certain abstract features of the L2 would be a source of age-related effects due to cognitive development. Another view is that resetting parameters becomes increasingly difficult with age. For Bley-Vroman (1989), late L2 learners have no access to UG, nor to mechanisms specific to language learning, and instead must rely on their knowledge of L1 and domain-general learning mechanisms.

Sources of age-related effects relating to L1 entrenchment have to do with the possibility that as L1 representations become entrenched over age due to increase of L1 use and processing over age, L2 learning becomes more difficult. In pronunciation, for example, Flege (1992) proposed that the phonetic categories for L1 sounds become so strongly entrenched that L2 learners incorrectly treat new L2 phonetic categories as members of their pre-existing, phonetically similar L1 categories, resulting in non-nativelike perception and production in L2. In syntax, MacWhinney (2005)'s Competition Model predicts that L2 learners whose L1 word order is subject-initial will tend to process the first noun in an L2 string as the subject, even if the L2 word order itself is not subject-initial. Other connectionist models, that of Elman, Bates, Johnson, Karmiloff-Smith, Parisi and Plunkett (1996), for example, suggests that as L1 representations become progressively entrenched in neural networks, re-representations or "unlearning" becomes progressively difficult.

2.3 CRITERIA FOR A CP

In order to specifically characterize the behavior of L2 acquisition following the maturational changes before and after the critical period, a clear understanding of a critical period is necessary. Below are some claims offered as evidence for the existence of a critical period:

> During select times in the life cycle many structures and functions become especially susceptible to specific experiences (or to the absence of those experiences) in a way that alters some future instantiation of that (or a related) structure or function (Bornstein, 1989, p. 179).

> Certain environmental events must happen at certain times in the development of an organism in order for normal development to occur (Gazzaniga, 1992, p. 50).

> Any phenomenon in which there is a maturational change in the ability to learn, with a peak in learning at some maturationally definable period […] and a decline in the ability to learn, given the same experiental exposure, outside of this critical period (Newport, 1991, p. 112).

These definitions all refer to a specific span of time in the life cycle, a certain "definable period" of heightened sensitivity in which a peak is reached (in any type of learning or in any area of behavioral development), followed by a decline in the ability to learn. The definitions also assume that, under normal circumstances of learning, the ability itself, to learn during the critical period is assured. It is probably controlled by endogenous factors such that exogenous factors will have *no* primary effects. A point that is widely upheld by supporters of the CPH is the fact that external factors involving socio-psychological, attitudinal, motivational, socio-demographic variables will *not* affect language learning and the outcome of that learning. Thus, learning outside the critical period is possible but the form of learning and its outcome are very different from learning that occurs before or during the critical period.

Furthermore, the critical period typically includes an abrupt onset with an increase of sensitivity, a plateau of heightened sensitivity, followed by a gradual offset with a

decrease of sensitivity resulting in a flattening out of the degree of sensitivity. Hyltestam and Abrahamsson (2003) observe that the end of the critical period is typically associated with a *sudden* offset. The slopes of the two transitions are not so much consequential as their existence. What is of importance here, as Birdsong (2005) notes, is the fact that the critical period includes the transition phases as well as the plateau level. According to Bornstein (1989), although it is assumed that sensitivity is constant during the critical period, by definition, the sensitive period is sustained within the limits of its onset and offset. Thus, the beginning of the critical period will correspond to the age at which sensitivity starts to increase and the age at which sensitivity is at its lowest level will correspond to the end of the critical period. Note that with a critical period that includes both transitional and peak sensitivities, the degree of attainment within the critical period is not always full attainment of the L2 but one which includes lower levels of attainment as well (Birdsong, 1999) (for more detail on the age function, see Birdsong, 2006).

With what we know from the CPH and its implications, three assumptions can be made based on the hypothesis:

(1) It is expected that the earlier the learning starts, the better the achievement: even though adults may have a faster rate of initial learning, children should show a subsequent (including eventual outcome) advantage over adults in levels of achievement.
(2) Post-pubescent learners or late learners should never be able to reach an ultimate level of attainment comparable to that of native speakers, i.e., there should be *no case* of nativelike asymptotic performance by adults in an L2.
(3) Age-related effects on L2A should demonstrate a discontinuous function across ages of acquisition, corresponding to the end of the presumed critical period.

However, studies in the L2A literature have consistently found evidence contrary to these assumptions. Since our focus in this study is in L2 ultimate attainment by late learners

and evidence of nativelike performance at end-state, we discuss the second assumption in greater detail in the section below. For a discussion on the first and third assumptions, see Birdsong (2006), Birdsong (2009), and Paik (2001).

2.4 NATIVELIKE ULTIMATE ATTAINMENT BY LATE L2 LEARNERS

With regard to nativelike ultimate attainment, it was generally assumed, under the CPH, that only younger learners could reach such a level, with no possibility of late learners performing nativelike. Concerning the relationship between age of acquisition and variance in ultimate performance, Johnson and Newport (1989) posited that:

> 1. Before age 15, and most particularly before age 10, there are very few individual differences in ultimate ability to learn language within particular age group; success in learning is almost entirely predicted by the age at which it begins.
>
> 2. For adults, later age of acquisition determines that one will not become native or near-native in a language; however, there are large individual variations in ultimate ability in the language, within the lowered range of performance (p. 265).

However, since the 1990's, several researchers have attested nativelikeness in both L2 phonology and morpho-syntax among learners who began acquisition after puberty. These learners performed in the native speaker range, usually, between +/- 2 standard deviations from the native control mean. Moreover, estimates of rate of success in such adult L2A studies typically range from 0% to 5%, to even 10% in some cases. For Long (1990), a single instance of nativelikeness in a late L2 learner would serve to refute the CPH. He argues that "the easiest way to falsify [the CPH] would be to produce learners who have demonstrably attained native-like proficiency despite having begun exposure well after the closure of the hypothesized sensitive periods" (p. 255). With such a criterion for refuting the hypothesis, the studies below should constitute more than

enough evidence for rejecting the existence of a critical period. Here is a summary of studies showing nativelike performance by late learners of an L2.

2.4.1 L2 pronunciation

In the area of phonetics and phonology, Bongaerts and his colleagues (Bongaerts, Planken, & Schils 1995; Bongaerts, van Summeren, Planken, & Schils, 1997; Bongaerts, 1999) report, on several occasions, on the nativelike pronunciation of some highly proficiency post-pubescent learners of Dutch foreign language students of English and French in the Netherlands. From the results of read-aloud tasks on words, sentences and longer texts, it was found that a significant number of the subjects passed as native speakers according to the ratings of native judges. They even performed at the uppermost range of native controls, showing an L2 proficiency that was indistinguishable from that of native speakers.

In a similar study, Bongaerts, Mennen and van der Slik (2000) examined the pronunciation of very successful learners of Dutch as L2 in a naturalistic setting. Learners with a variety of L1 backgrounds, who had come to the Netherlands between the ages of 11 and 34, were rated on their pronunciation of Dutch by Dutch judges. Results showed that two of the subjects, with AOAs of 14 and 21, performed in the lower range of native controls and were able to pass as natives.

Flege, Munro, and MacKay (1995) asked 240 Italian immigrants to Canada, with English as their L2, to read aloud 5 short English sentences. A linear decline in accent ratings was observed over increasing AOA. L2 learners began to fall out of the native range as early as age 2, and 6 out of 120 post-pubescent learners performed in the native range.

Birdsong (1997) examined the acquisition of constraints on the liaison consonants in French by 20 English native speakers with an average AOA of 23 years and who had resided in France for 5 years or more. Four (or 20%) of the learners performed at 100% accuracy.

In another study of ultimate attainment in phonology, Moyer (1999) investigated the pronunciation of 24 late, but highly advanced and highly motivated, American learners of German as a foreign language. Three read-aloud tasks (word list, sentences, and paragraph), as well as a free oral production task, were independently rated by four native German judges. Even though all judges were able to differentiate L2 learners from the natives, there was one subject who performed within the range of native controls across all four pronunciation tasks.

In Birdsong (2003a, 2007), 22 Anglophone adult learners of French (average AOA of 24.5 years, average LOR of 11 years) were rated on their L2 French pronunciation at both segmental (measures of Voice Onset Times of initial consonants, as well as measures of vowel length in tonic, open syllables) and global levels (sentence level). Across all performances, two of these late learners received ratings corresponding to the lowest range of performance by native controls, thus, comparable to native speakers.

2.4.2 L2 morphosyntax

In the area of morphosyntax, Birdsong (1992) conducted a partial replication study of Coppieters (1987) and tested the grammatical competence of 20 post-puberty L2 learners of French who had had at least three years of residence in France and whose mean AOA was 28.5 years. Performance on a difficult grammaticality judgment task on seven French syntactic structures and highly French-specific constraints revealed that among the subjects, 15 performed within the range of native controls.

Van Wuijtswinkel (1994) administered a grammaticality judgment test of a sub-set of items from Johnson and Newport (1989) as well as other syntactic structures in English to Dutch native speakers learning English. They had begun acquisition after 12 years of age. Among the 26 subjects of the first group, eight performed nativelike, whereas seven out of eight participants of a second group showed nativelike performance.

Juffs and Harrington (1995) tested native Chinese speakers whose significant exposure to English occurred post-puberty. Overall, these L2 learners were able to judge ungrammatical English sentences which violated *wh*- movement rules as well as native speakers, even though these rules do not exist in Chinese.

White and Genesee (1996)'s study on the acquisition of English by French native speakers in Montreal showed evidence of nativelikeness. Language samples from their 89 subjects, including pronunciation, morphology, syntax, vocabulary, fluency, and overall impression of nativeness, were independently evaluated by two English judges. Results showed that a group of 45 near-native subjects passed as native speakers, 16 of which had had their first significant exposure to English after the age of 12. After this initial screening process, the main testing procedure took place, involving a grammaticality judgment test and a question-formation test. Results on these tests showed no significant differences between the near-native group and the native control group on either of the measures, not even for reaction times. There were no effects for age within groups, in that late learners performed as well as young learners.

Birdsong (1997) looked at the acquisition of the clitic SE in French intransitive constructions. Since the distribution of the clitic is highly idiosyncratic, it was expected that nativelike performance on this specific aspect would be very unlikely. However, 4 of the 20 English natives (i.e., 20%) scored above the native mean of 95% accuracy.

Cranshaw (1997)'s study included 20 French-speaking and 20 Chinese-speaking learners of L2 English who started acquisition after age 12. Results on a variety of procedures and measures showed that 15% of the French learners and 5% of the Chinese learners performed nativelike.

In a replication of Johnson and Newport (1989), Birdsong and Molis (2001) investigated the acquisition of L2 French syntax by 61 Spanish native speakers with early AOA (≤16) and late AOA (≥17). Results from the grammaticality judgment test showed that among the 32 late arrivals, three had scores above the range of 95% accuracy, and 13 had scores at or above 92% accuracy.

In the study by van Boxtel, Bongaerts, and Coppen (2003), 30 very advanced German and French late learners (AOA≥12) of Dutch and their performance on a grammar test was compared with that of 44 highly educated native speakers of Dutch. The test consisted of an elicitation imitation task and a relative grammaticality judgment task. In these tasks, the subjects were tested on their knowledge of dummy subject constructions which are hard to acquire for learners of Dutch. Results showed that on the relative grammaticality judgment task, three German and four French participants fell within the native speaker range. Of these participants, all the native speakers of German and one native speaker of French also performed within the native speaker range on all items in the imitation task.

In a study of the acquisition of aspectual features in Spanish, Montrul and Slabakova (2003) administered two interpretation tasks to late English learners of Spanish and found, among their highly proficient learners, that 70% performed like natives on all sentence types in both tasks.

2.4.3 L2 processing

More recently, research based on brain activity address the question of whether L2 processing is accomplished the same way as L1 processing (or whether late bilingual processing resembles that of early bilinguals). These studies use imaging techniques such as functional magnetic resonance imaging (fMRI), positron emission tomography (PET), and event-related brain potential (ERP) methodologies to measure and locate reactions to semantic (the N400 effect) and syntactic (the P600 effect) anomalies.

Brain-related research has focused on two predictors of degree of similarity: AOA and L2 proficiency. fMRI studies involving word repetition, cued word generation, sentence generation, and cognate and non-cognate naming have shown that highly proficient learners, even with late AOA, tend to resemble native speakers in terms of regional brain activity during these tasks (for a list of these studies, see Birdsong, 2006). For example, when Perani et al. (1998) compared high-proficiency late and early

bilinguals on story listening using PET (no monolinguals were compared in this study), they found overlapping patterns of brain activity among the two groups. ERP studies examining the timing of reactions to syntactic and semantic anomalies also reveal, generally, that highly proficient L2 users' (and late learners') reactions take place at the same post-stimulus latencies as L1 users (for a discussion, see Birdsong, 2006). For example, in a more recent dissertation study of late learners' performance on information structure on L2 French, Reichle (2009) found that highly proficient L2 speakers can acquire aspects of information structure processing to a nativelike degree.

In general, both fMRI and ERP studies suggest that L2 proficiency, rather than AOA, is the strongest and most reliable predictor of degree of similarity between late learners and monolingual natives, such that L1 and L2 processing converge with increasing L2 proficiency (Green, Crinion, and Price, 2006) (exceptions are discussed in Birdsong, 2009).

As we can see, late L2 learners can reach nativelike levels of performance not only in pronunciation and morphosyntax, but also in L2 processing. If the CPH for L2A is connected to neurological changes in the brain due to maturation, there should be no exceptions to the rule that learners who start acquiring an L2 after the onset of puberty will *not* be able to reach a nativelike level of ultimate attainment in that language. In this regard, the results of the many recent studies presented above should constitute strong evidence against the existence of a critical period. Clearly, adult L2 learners *can* achieve very high levels of ultimate attainment. Going back to Long (1990)'s challenge - a single instance of nativelike attainment by a post-pubescent L2 learner would serve to refute the CPH – and the recent evidence of cases of nativelike attainment by adult learners, we are led to wonder whether a maturational account still holds and whether cases of nativelike attainment should be regarded as exceptions. As Birdsong (1992) suggests, a point must be reached where exceptions to the CPH are not taken as "mere outliers in the distribution" (p. 74). Whatever the cutoff age of late versus early AOA, there is still a

non-negligible number of late learners who do achieve nativelike levels of ultimate attainment.

2.4.4 Across-the-board nativelikeness

Contrary to the predictions of the CPH, recent studies have either found post-maturational age effects or have attested nativelike performance in late L2 learners, such that their performance was indistinguishable from that of native speakers of the L2 (Birdsong, 2003; Birdsong, 2005; Flege, 1999; Flege, Yeni-Komshian & Liu, 1999; Bialystok & Hakuta, 1999; Marinova-Todd, 2003a, 2003b, 2003c; the works of Bongaerts and his colleagues; Montrul & Slabakova, 2003, van Boxtel, Bongaerts & Coppen, 2003; Abu-Rabia & Kehat, 2004). Moreover, in more recent studies (Marinova-Todd, 2003; van Boxtel, Bongaerts & Coppen, 2003; Birdsong, 2005), analyses of *comprehensive, global* or *across-the-board* nativelikeness have been undertaken, in which several linguistic tasks representing various linguistic sub-domains were administered. These comprehensive studies are aimed to determine the upper limits of L2 acquisition by adult learners and include linguistic areas such as phonology, lexicon, morphosyntax, and pragmatic language use.

These studies clearly demonstrate the existence of post-pubescent L2 learners who achieve nativelike ultimate attainment in their L2, in some language domains, as well as across the board. In other words, comprehensive nativelikeness does not appear to be unreachable by adult L2 learners (Birdsong, 2005).

2.5 UPPER LIMITS OF ADULT L2A

Because the CPH deals with L2 proficiency at end-state, knowing the upper limits of L2 attainment, essentially, what the L2 learner *can* do at asymptote, is critical in the description of constraints on language learning. We saw earlier that in most of the experimental studies with late L2 learners, the incidence of nativelikeness was between 5

and 15% of the sample subjects. Most of these studies have focused on one linguistic domain of the L2, such as pronunciation or syntax and have, thus, shown incidence of "narrow nativelikeness" (Birdsong, 2003c) in the sense that some late L2 learners were judged to be nativelike in one specific domain of the L2 that was being studied.

However, Birdsong (2003c) undertook an analysis of comprehensive or across-the-board nativelikeness, in which several linguistic tasks representing varied linguistic sub-domains were examined. This would enable us to determine the asymmetries in a learner's level of performance and to determine whether there are learners who are nativelike across the varieties of performance. By examining individuals' performances on a variety of different tasks, researchers are able to determine, regarding ultimate levels of attainment, whether nativelikeness is observed only in cases of narrow performance. It also allows them to determine whether or not, relating to learnability, all features of an L2 grammar, as opposed to just a subset, can be attained to nativelike levels by some late learners. In his study, Birdsong (2003a) examined both L2 pronunciation (word-final vowel length, VOT measures for word-initial consonants, liaison and global accent) and L2 syntactic proficiency (distribution of the French particle *se* in intransitives, null object, exceptional case marking) of 17 L2 English/L2 French late learners. Results showed that comprehensive nativelikeness, that is, nativelikeness in both areas of pronunciation and syntax, was not observed among the subjects. However, three of the late learners had performed at nativelike levels in most domains. At the level of the individual, scattered "pockets" of nativelikeness were observed in different performance domains. At a global level, nativelikeness was observed in all linguistic domains. That is, there was no area in which no learners performed like natives.

In another study examining across-the-board nativelikeness, Marinova-Todd, in her dissertation (2003), looked at the performance of highly proficient non-native speakers (NNS) of English on a variety of tasks assessing pronunciation, vocabulary size, grammar knowledge and communicative competence (both formal and spontaneous measures were included). Participants were 30 highly proficiency adult non-native speakers (NNS) of English, with varied L1 backgrounds, who were first exposed to the

L2 after the age of 16 and who had lived in an English-speaking environment for at least 5 years. A control group of 30 native speakers of English was included as well. Results revealed that on average, the L2 learners of English performed significantly lower than the natives on measures of pronunciation, vocabulary size and grammar knowledge. However, 40% or more of these learners scored within the native range on at least some domains. She further analyzed the profiles of NNSs who scored within the native range on formal and spontaneous measures across all four domains under examination. She identified three NNSs who scored within the native range on all measures, three more subjects who scored within the native range on all language constructs, except grammar, and three others who scored within the native range on all measures but pronunciation.

In a case study by Ioup, Houstagi, El Tigi, and Moselle (1994), two exceptionally talented speakers of Arabic are presented. Julie is an L2 speaker of Egyptian Arabic with AOA to Cairo of 21 years, who received no formal L2 instruction, with an LOR in Egypt of 26 years at the time of the study. She was married to an Egyptian man and worked as an EFL teacher at an Egyptian school. The second subject, Laura is a speaker of a variety of L2 Arabic who had taken Arabic at different universities and in different countries and who was living in Cairo with her Egyptian husband at the time of the study. Her LOR was 10 years and she worked as a university professor of Standard Arabic. A large set of elicitation instruments were used to assess Julie and Laura for pronunciation, dialect differentiation abilities (two tests), and grammatical competence (translation, grammaticality judgment test, and interpretation of anaphora). Results showed that both Julie and Laura performed as well as, and even better than, some natives on the dialect differentiation test, with Julie performing somewhat better than Laura. A majority of the 13 judges rated both Julie and Laura as native speakers. Both subjects also scored high on tests of grammatical intuitions, though slightly below the native controls.

With respect to the upper limits of L2 acquisition, these studies clearly demonstrate the existence of post-pubescent L2 learners who achieve nativelike ultimate attainment on their L2, in some language domains, as well as across the board. Thus,

Hyltenstam and Abrahamsson (2000)'s claim that there was "no case on record of a post-pubertal L2 beginner [who performed] nativelike in every linguistic detail" can be put into question. As Grosjean (1985, 1989) had suggested, cases of perfect bilinguals will be rare if ever found. On the other hand, it would be almost impossible to assess an L2 learner on his or her L2 proficiency in every linguistic detail. However, without abusing the criterion for nativelikeness, comprehensive nativelikeness does not appear to be unreachable by L2 learners. The results also imply that the attainment potential of late L2 learners is not inferior to that of L1 learners. Just like L1 learners, L2 learners can learn anything to nativelike levels, that is, "there are no a priori limits on the grammatical features that can be learned to nativelike levels" (Birdsong, 2003b). It takes the focus away from negative speculations on L2 acquisition by late learners to a meaningful, theoretically-sound measurement of the upper limits of attainment in L2 against the baseline of the native speaker. As Birdsong, (2009) notes, it is more reasonable to argue that what has been considered as deficiencies in learning are actually artifacts of the nature of bilingualism: L1 and L2 affect each other in different directions and to different degrees and the two languages are not identical to that of a monolingual (Cook, 2002; Grosjean, 1989).

2.6 RECONCEPTUALIZING NATIVELIKENESS

Given the results of the studies mentioned above, a need to reconceptualize the notion of nativelikeness or the monolingual bias seems to be in order when comparing L2 learners with native speakers such that L2 learners can be seen as competent speakers and users of an L2, "effective bilinguals" (Cook, 1995, p. 55), instead of deficient monolinguals.

2.6.1 Linguistic perspective

Davies (1991) summarizes six different characteristics of the native speaker with the aim of relating them to the ability of L2 learners: 1) he or she is a native speaker of the L1 acquired in childhood, 2) he or she has intuitions about acceptability and productiveness of their L1 grammar, 3) he or she has intuitions about L2 features that are different from their L1, 4) in production and comprehension of discourse and pragmatics, he or she can produce and understand fluent, spontaneous speech with respect to his or her communicative competence, 5) he or she can write creatively, and finally, 6) he or she has the ability to translate and interpret into his or her native L1 (Davies, 1991, p. 148). Apart from the first characteristic which is the only one an L2 learner cannot be by definition, for the other five, an L2 learner can "with sufficient contact and practice" (Davies, 1991, p. 149), access nativelike intuitions, as well as nativelike competences and capacities. Considering the linguistic and communicative competences of the native speaker, i.e., the subconscious knowledge of rules and their creative ability of producing new sentences, Cook (2001) argues for the possibility for L2 learners to acquire some, if not all of these competences, including some metalinguistic knowledge, i.e., an internal knowledge about the language, as well as some discriminating knowledge, i.e., knowing what is and what is not part of the language (grammatical vs. ungrammatical), some communicative competence according to which native and non-native speakers know what is appropriate and useful in certain contexts in relation to the setting, the speakers, the background knowledge, and so on (Davies, 1991, p.85-87). Generally, it is possible for adult L2 learners to meet some or all of these characteristics. But as Mack (1997) suggests, although the monolingual native speaker is a necessity, it should not be the norm. However, the belief that nativelike L2 learners should perform exactly the same way as native speakers, thus, not deviating a single instance from the native speaker norm, is unreasonable and the expectation of a 100% accuracy rate for L2 learners' performance for them to be considered nativelike is absurd.

2.6.2 Psycholinguistic perspective

Grosjean (1985) and Cook (1992, 1993, 1996, 1999, 2001) propose to view the L2 learner as a bilingual speaker and a multi-competent speaker. For Grosjean (1985), for example, once L2 learners have reached asymptote, they have become bilinguals who need and use two (or more) languages in their everyday lives, and the vast majority of these bilinguals are not true (or real, perfect, balanced) bilinguals in that they do not speak their L1 and L2 as two monolinguals of L1 and L2. Since the bilinguals' use of their two languages is situation-specific, he proposes a bilingual or wholistic view whereby, "the bilingual is a fully competent speaker-hearer; he or she has developed competencies (in the two languages and possibly in a third system that is a combination of the first two) to the extent required by his or her needs and those of the environment" (Grosjean, 1985, p. 471). Simply put, the bilingual does not equal two monolinguals in one person: their language competencies are different, they can be in bilingual speech mode or monolingual speech mode, they can mix their two languages, and their language processing systems are different. Measured against the yardstick of the (rare) balanced bilingual or two monolinguals, the L2 learner is seen as a failure for not achieving a full, complete level of attainment in the L2. With a bilingual perspective instead, the L2 learner should be seen as a success, whatever the level of L2 proficiency they have reached, for having gone beyond the native L1: "measured against the 100% of a person who knows one language, the balanced bilingual is functioning at 200%; L2 learners of lesser achievement are functioning at levels between 100% and 200%", and "whatever the L2 user has achieved exceeds the capabilities of monolinguals, rather than falling short" (Cook, 1995: 54).

Along the same lines, Cook (1992, 1993, 1996, 1999, 2001) argues for the importance of recognizing the multi-competence of the L2 speaker. Multicompetent individuals are not equivalent to two monocompetent individuals. They have a distinct state of mind from the monolingual (with respect to L2 knoweldge, grammatical intuitions, metalinguistic awareness, and cognitive processes) which cannot and should

not be considered as the sum of two monolingual minds. Cook (1992) claims that "there is a possibility that the two or more languages of multicompetence form a total language system rather than independent systems" (p. 566). Thus, from an L2A perspective, the monolingual standard should only be used as the criterion for what they can do at 200%, not as the criterion for assessing how they "fail to reach standards set by people that they are not by definition" (Cook, 1996, p.64). Simply put, "the L2 cannot be learned as a second L1" (Cook, 1992, p.579) and L2 learners' performance should be interpreted accordingly.

2.6.3 Sociolinguistic perspective

L2 learners need to be seen as creative L2 users, acting in a social world, using the L2 for specific social purposes. In this regard, Piller (2002) tries to interpret what advanced L2 learners can do with their second language: what does it mean for an L2 speaker to speak in a nativelike fashion from a sociolinguistic point of view? What goals, in a sociolinguistic sense, are they trying to reach by using their nativelike L2 proficiency skills? What identities are they taking on when speaking like a native, whether consciously or not? In her study, she investigated the sociolinguistic act of very proficient L2 speakers who *pass for* native speakers of the L2. In passing for a native speaker of the L2, "the highly proficient L2 speakers […] are, on occasion, warranted as native speakers by 'authentic' native speakers" (Piller, 2002, p. 181). Thus, this act or performance is considered as an ability, that of not being perceived as the marked social role of foreigner, in other words, a competence which reflects high levels of L2 proficiency, and judged as such by the native speakers themselves. Thus, passing is typical of first encounters' interactional contexts. How long they can put on the act of passing is of much interest in evaluating their achievement: the longer the act, the more successful the L2 achievement is judged to be. Piller points out the fact that "these people are very aware that they will be perceived stereotypically if they are identified with a particular national group while overseas" (2002, p. 194). On the other hand, others prefer to clearly

identify themselves as non-natives during the interaction before they are *caught* in the act. An example is that of a woman with L1-Danish/L2-German who says that if she doesn't make it clear that she is not a native, her interlocutors would think of her as "not intelligent" or bizarre if she doesn't understand something every German knows: "in order to protect one part of her self-image (that she's an intelligent and well-informed person) she has to trade in another aspect of her personality (successful L2 speaker who can pass for an L1 speaker)" (Piller, 2002, p. 195). Likewise, many L2 speakers, according to Piller, seem to evaluate, consciously or unconsciously, the benefits and disadvantages of passing before deciding whether to put on the act or not. This is especially so when their interlocutors do not seem to concentrate on their status as L2 speakers as a major feature of their identity. Thus, this performance of matching the default (the L1 native) as much as possible can be *played in* and *out* freely by the L2 users depending on the interactional contexts. Despite the claims that such passers are rare, unusual, or even impossible, Piller (2002) found a considerable number of passers. For example, in a sociolinguistic study of the linguistic practices of bilingual couples, she found that 27 out of 73 (about 40%) of the individual subjects (with AOAs between 15 and 29) claimed that they had achieved high-level proficiency and that they could pass for natives on certain occasions. Finally, the act of passing, or high achievement in general, is audience-specific: the more private the context, the more comfortable the interlocutors are with themselves, the better their performance in the L2. Not only does the private, at home context allows for a better L2 performance, but it also favors the creative use of the L2. As Piller points out, the L2 users highly evaluate their creativity in L2 use as high proficiency, that is, "saying the right thing at the right moment, finding a snappy phrase, hitting the nail on the head" (Piller, 2002, p. 197). These two aspects, L2 use in private, personal contexts, and the creative ability of L2 users, have been neglected in L2A research so far when accounting for L2 performance.

2.7 FACTORS AFFECTING END-SATE L2A

As seen in section 2.2.2, a combination of factors (relating to neurobiology, neurocognition, cognitive development, and L1 entrenchment) may help understand the age-related effects in L2A. However, as Birdsong (2009) notes, these factors alone cannot explain the different outcomes of L2A at end-state. In this section, we review the most important individual learner variables, such as affective and experiential factors relating to L2 use and interaction that favor high levels of attainment and that can explain attained nativelikeness.

Although age of arrival appears as the strongest and most reliable predictor of performance (Johnson & Newport, 1989; Birdsong & Molis, 2001; Flege, Yeni-Komshian, & Liu, 1999), the age factor alone cannot provide a full account of differences in L2 attainment. In fact, Marinova-Todd et al. (2000) argue that "although older learners are indeed less likely than young children to master L2, a close examination of studies relating age to language acquisition reveals that age differences reflect differences in situation of learning rather than in capacity to learn" (p. 9). At the level of the individual, a multitude of other experiential, contextual, attitudinal and motivational factors are at play during the L2 acquisition process and it is these confounded variables that affect, to different degrees, the level of L2 attainment at end-state.

2.7.1 L2 use

The amount and type of output, that it, L2 use in the quantitative (measured by the percentage of L2 use in everyday life) and qualitative (depending on the L2 use in context: at home, at work, at school, in an informal setting, in a formal setting) sense of the term, appears to be, next to AOA, the next best predictor of outcome (Birdsong & Molis, 2001; Flege, 1999; Flege et al., 1999, Flege & Liu, 2001). The strong effect of L2 use reported in these studies suggests that for adult learners, high level of ultimate attainment and even nativelike attainment is, in fact, possible provided ample exposure and intensive use of the L2.

When considering the role of biographical variables in L2 attainment, Birdsong and Molis (2001) found that among late learners and over all their subjects, amount of current English use was a strong predictor of performance. This goes against the claim of Johnson and Newport (1989) who suggested a minor influence of input on performance compared to the effects of maturation, but is consistent with Flege, Frieda, and Nozawa (1997), Flege (1999), and Flege, Yeni-Komshian and Liu (1999).

Another study examining the effect of L2 use on accuracy is that of Flege, Yeni-Komshian, and Liu (1999). The Koreans' L1 and L2 English use was estimated from their responses on background questionnaires from which partial correlation analyses were run. Results suggested that variations in the Koreans' use of their L1 and L2 were correlated with performance independently of AOA. More specifically, in a comparison of a subgroup of Korean participants matched for AOA, researchers found that Koreans who used English relatively often and Korean relatively seldom were more accurate in pronunciation of English and scored higher on the lexically-based grammaticality judgment test than those who used Korean proportionally more than English. Even though these two subgroups did not differ significantly in their overall or rule-based morphosyntax scores, it is evident that the pattern of language use has a direct effect on the degree of foreign accent and on the irregular features of English, that is, on those areas of morphosyntax that are lexically-based.

Finally, in her study of native Spanish early and late learners of English and native Vietnamese early and child learners of English, McDonald (2000) attributes the lower level of mastery of native Vietnamese early acquirers (compared to the native Spanish early acquirers) to less L2 practice and less L2 use (that is, when the factor of L1-L2 pairing is taken out). The native Vietnamese early acquirers had in fact self-reported a lower fluency in, and use of English than the native Spanish early acquirers.

Another learner attribute to be considered here is L2 dominance. Relative frequency of use is one aspect of dominance, but in psycholinguistic terms, learners who speak, read, write, and hear more often in the L2, as opposed to L1, process their L2 faster and with greater accuracy than their L1 (based on picture and number naming

tasks, or recall of words heard under noise). Flege, MacKay, and Piske (2002) found that among their three groups of subjects (L2 English dominant, L1 Italian dominant, highly proficient learners in both languages), the latter two groups had detectable accents, whereas L2-dominants were indistinguishable from natives.

Relatedly, in case of complete loss of L1, as in the case of the Korean adoptees to Paris that were examined in Pallier et al (2003)'s study, L2 speakers' performance on several experimental tasks revealed that they were indistinguishable from French natives.

2.7.2 L2 input

As Birdsong (1999) points out, "there is little doubt that exogenous factors, such as variations in the amount and type of target language input, play a role in determining the final product" (p. 8). The importance of frequent and substantial exposure, related to input, has been stressed in previous studies (Bongaerts, 1999; Bongaerts et al., 1995; Bongaerts et al., 1997; Bongaerts et al., 2000) and still constitutes one of the determining factors in ultimate attainment. In all his studies, Bongaerts and his colleagues argued, on the basis of the subjects' learning histories, that the most successful learners were much more intensively exposed to natural, authentic spoken target language input and that they had continued access to massive L2 input. This was the case for the first three studies mentioned above in which the highly successful learners (Dutch native speakers learning English) had all received a large amount of input from native speakers of British English from the age of 18 and on, when they entered university.

On the other hand, a number of earlier studies (Johnson & Newport, 1989; Patkowski, 1980; Patkowski, 1990) have suggested that the correlation between the amount of input and performance was either non-significant or explained less than 5% of the variance. However, researchers in these studies suggest that despite this non-significance, further research should analyze the role of input in L2A to determine whether the better performance of early learners are due to the type of input they receive. Some researchers have claimed that the age differences found in language learning are

due to the differences in the quality of input children and adults receive. Children receive the ideal type of input, that is, simple, concrete and reduced input, whereas adults are exposed to syntactically more complex, abstract input (Johnson & Newport, 1989).

2.7.3 Motivation

The two main types of motivation that have a positive impact on L2 achievement are *integrative* motivation (or the Internal Cause Hypothesis) and *instrumental* motivation (or the Carrot and Stick Hypothesis). *Integrative* motivation concerns the people and the culture of the target language: it reflects whether the L2 learner positively identifies with the L2 culture and its people or not, such that the more the L2 learner identifies with and has a positive image of the target culture, the more he/she will be integrating in the L2 context, assimilating to native speakers of the L2, and as a result, the more successful the learner will be (Cook, 2001). L2 learners' beliefs about bilingualism and monolingualism are also important. Speaking two languages can be seen as a positive ability and L2 learners might feel that they are adding something new to their skills and experience by learning another language. In this case of "additive bilingualism" (Cook, 2001), L2 learners might reach a higher level of ultimate achievement, as opposed to a context of "subtractive bilingualism", in which learners might feel a sense of threat to what they already know from learning a new language. *Instrumental* motivation involves external influences and incentives in learning an L2. Learners with instrumental motivation might learn the language for reasons unrelated to its use by native speakers, for example, to pass an examination, to meet a certain requirement for foreign languages, or to fulfill a certain need professionally in their careers, and so on.

Although Johnson and Newport (1989) and Thompson (1991) did not find a positive relationship between motivation and success, many more recent studies have found such an effect especially in L2 pronunciation. Klein (1996) argues that if learners have sufficient access to L2 input and if it is important for them to sound like native speakers, then, better levels of attainment (including nativelike levels) can be expected in

L2 pronunciation even for late starters. For example, in Bongaerts, Planken, and Schils (1995), involving Dutch learners of English and English learners of Dutch, the biographies of the four subjects whose English pronunciation fell within the range of the native control group showed that they reported intensive contact with native speakers of English at international conferences, reading English at university and also that it was very important for them to speak English without a noticeable Dutch accent.

Similarly, the five successful Dutch late learners of English with nativelike pronunciation in Bongaerts, van Summeren, Planken, and Schils (1997), the five successful Dutch late learners of English and the four successful Dutch late learners of French in Bongaerts (1999) reported the importance of being able to speak L2 English or L2 French without a noticeable Dutch accent in view of their profession. Most of the subjects with L2 English in the group of highly successful learners in both studies taught English at a Dutch university or a Dutch teacher-training institute, whereas most of the subjects with L2 French were senior university students of French or teachers or professors of French employed by Dutch institutions of secondary or tertiary education.

Moyer (1999) examined the role of motivation in the pronunciation accuracy of highly motivated English speakers of L2 German. Their motivation was instrumental in nature in that mastering the language was necessary for the program of study and for their teaching at an American university. From correlation computations, it was found that professional motivation and mean rating constituted one of the most statistically significant correlations. Moreover, this relationship was strengthened in stepwise regression analyses, which showed that professional motivation accounted for about 41% of the variance in outcome.

Birdsong (2003a) found two of his Anglophone subjects to be nativelike in their pronunciation of L2 French, both at the segmental level and at the sentence level. These two successful learners self-reported a high level of motivation both in a formal context (at school) as well as in an immersion context in France. It was also very important for them to have a nativelike accent and be able to pass as native speakers of French.

Marinova-Todd, Marshall, and Snow (2000) point out two different studies involving the factor of motivation and attitude. MacIntyre and Charos (1996, cited in Marinova-Todd et al., 2000), for example, claimed the importance of attitudes toward the target language culture, self-efficacy and a willingness to communicate as integrative motivation for successful L2 achievement. Gardner, Tremblay, and Masgoret (1997, cited in Marinova-Todd et al., 2000) also revealed a strong correlation between factors such as anxiety about language learning, self-confidence, and motivation and L2 proficiency.

Finally, Jia, Aaronson, and Wu (2002) highlighted the importance of variables such as motivation to achieve high levels of proficiency and identification with the L2 culture (as well as the mother's L2 proficiency) in determining L2 achievement.

2.7.4 L1-L2 pairing

There are two ways of approaching the issue of the relationship between L1 and L2 and its effect on ultimate attainment: first, by the mutual influence of L1 to L2 and of L2 to L1, and second, by the typological distance between L1 and L2.

With regards to mutual influence, i has been claimed that the interaction between L2 knowledge with L1 knowledge is a crucial factor in age-related effects in L2 acquisition (Singleton, 2003). For example, Flege (1999) posits, from an interactionist view, that bilinguals cannot fully separate the L1 and the L2 phonetic systems which are in constant interaction, such that "the phonic elements of the L1 subsystem necessarily influence phonic elements of the L2 system, and vice versa" (p. 106). He goes on to argue that "the nature, strength, and directionality of the influence may vary as a function of factors such as the number and nature of categories established for phonic elements of the L1 and the L2, the amount and circumstances of L1 and L2 use, language dominance, and so on" (p. 106). Thus, as we have already seen, the interaction hypothesis predicts that a decrease in the use of or actual loss of the L1 may have a positive influence on the L2 pronunciation. In other words, the less the L1 is used, the less foreign accent the L2 pronunciation is predicted to be (Flege, Frieda, & Nozawa, 1997). In this line of thinking,

age-related effects can be accounted for by the differences in interaction and the amount of use of the two languages by children and adults. Singleton (2003) mentions the importance of the the language competition factor, suggested by Jia and Aaronson (1998) in their approach to age-related differences in L2 attainment. Adult immigrants to an L2 environment have their linguistic and cultural identity already formed and will prefer contacts with their fellow L1 native speakers rather than speakers of the L2, limiting the L2 input. Children, on the other hand, have practically no choice but to mingle with children speaking the L2. Moreover, their linguistic and cultural identities are not as fully formed as that of adults; thus, their desire to maintain their identities, if present, may not be as strong as that of adults. The high use of L1 by adults may typically result in a tendency to keep it and therefore in a less authentic L2 accent. The high use of L2 by children gives them a greater possibility in acquiring a nativelike L2 accent (or something short of it) at the expense of that of the L1 (which might be lost if not used).

From a slightly different angle, the interaction between an L1 and an L2 is also incorporated into the Speech Learning Model proposed by Flege (1995). According to this model, L1/L2 interaction constrains performance accuracy in the L2. In this model, cross-linguistic differences in segmental sounds have an effect on the perception and production of an L2 sound, as Flege hypothesizes, "the production of an (L2) sound eventually corresponds to the properties present in its phonetic category representation" (p. 109). More specifically, an L2 sound that is similar (but not identical) to an L1 sound is classified (both in perception and production) in a phonetic category of the L1 system, whereas L2 sounds that are dissimilar to the L1 sounds will be classified to a new phonetic category in the L2 system. From an acquisition perspective, those L2 sounds that are similar to L1 sounds will be harder to learn, thus less accurate and more accented than L2 sounds that are dissimilar to L1 sounds (Flege and Hillenbrand, 1984).

Another approach in the relationship between an L1 and an L2 and its effect on performance is the role of typological distance between the mother tongue and the target language. As Ellis (1994) points out, *distance* can be viewed as a linguistic phenomenon

(i.e., the degree of actual linguistic distance), as well as a psycholinguistic phenomenon (i.e., what the learners think is the degree of difference between their L1 and L2), referred to as "psychotypology" (p. 327). Despite the fact that in the area of pronunciation, proximity of the two languages has been shown to inhibit accurate pronunciation (that is, at the segmental level), in the area of syntax, it was shown, on the contrary, that similarity between L1 and L2 works as a "facilitating agency" (p. 327). In other words, the more the two languages are similar syntactically, the easier the L2 will be for the learner to acquire since there will be less parameter-resetting needed (Birdsong & Molis, 2001). Along with this last study, others (Bongaerts, 1999; Bongaerts, Mennen, van der Slik, 2000; McDonald, 2000; van Boxtel, 2003; Singleton, 2003) have found such L1-L2 pairing effects in pronunciation and syntax.

For example, in pronunciation, Bongaerts (1999) found five successful L1 Dutch/L2 English learners, and three highly successful L1 Dutch/L2 French learners (with languages that are typologically less related to the first pairing) who managed to attain an authentic, nativelike L2 accent. Still, the author cautions about the generalizabity of his results with other language pairings. In another study, Bongaerts, Mennen, and van der Slik (2000) examined the pronunciation proficiency of learners of Dutch from eleven different L1 backgrounds, the majority of whom were native speakers of German. Of the four most successful learners, three were native speakers of German, and one of English. Moreover, of those eleven learners with a mean rating corresponding to the lowest overall mean rating of a native speaker of Dutch, eight were native speakers of German, one of English, one of French, and one of Czech. In other words, except for the learner with L1 Czech, the learners with the highest ratings were from L1 backgrounds that were typologically close (i.e., German and English) to and relatively close (i.e., French) to the target language (i.e., Dutch). With these results, Bongaerts et al. (2000) suggest that in the domain of pronunciation at least, linguistic proximity facilitates performance and is a determining factor of ultimate nativelike attainment.

In the area of syntax, Birdsong and Molis (2001) also found an L1-L2 pairing effect on the performance of native Spanish learners of English (Spanish being a

language close to English), as well as that of native Korean and Chinese learners of English (Korean and Chinese being typologically more distant from English) on a grammaticality judgment test. Johnson and Newport (1989)'s claim that L1-L2 pairing should have a minimal effect on ultimate attainment was not supported. Birdsong and Molis found that, for native Spanish learners of English, age effects persisted past the end of the so-called critical period. The authors suggest that in a parameter-setting point of view, there are few parameters of Spanish to be reset to English ones, so much so that native Spanish learners of English should have a short-term advantage in rate of learning English relative to Korean and Chinese learners.

McDonald (2000) examined the effects of both age of acquisition and similarity of L1 and L2 grammars on performance on an L2 grammaticality judgment task. Early and late L1 Spanish learners of English and early and late L1 Vietnamese learners of English were compared to determine the effect of L1 on the ultimate performance of an L2 grammar, with Spanish being a language similar to English, and Vietnamese, one that is markedly different from English. As expected, results showed that native Spanish early learners did not differ from native English speakers on the grammaticality judgment test, whereas native Vietnamese early acquirers did. Native Spanish late learners, on the other hand, did not show mastery in almost all the rule types, except word order. However, unlike the native Spanish early learners, the native Vietnamese early and child learners showed a poorer performance on the grammaticality judgment task than the native English speakers. Moreover, the Vietnamese early learners had difficulty in exactly those areas of the L2 grammar that were markedly different from the L1 grammar. McDonald (2000) concludes that "for a language with a structure quite different from English, mastery was not seen even for early acquirers, and difficulties came exactly where they would be predicted from a comparison of the grammars" (p. 413).

van Boxtel, Bongaerts, and Coppen (2003) examined the ultimate attainment in L2 Dutch syntax by German and French natives, German being typologically closer to Dutch than French is. Results of different analyses showed that three German and four French participants fell within the native speaker range for both analyses of the relative

grammaticality judgment task. Of these learners, all the German native speakers and one French native speaker also performed within the native speaker range on all items in the imitation task. Thus, whereas the French natives did almost as well as the German natives on the grammaticality judgment task, they did perform much poorer on the imitation task. The authors attribute these results to the difficulty of decoding an auditory input when the difference between the L1 and the L2 is great. In this case, the processing load exceeds the working memory capacity of the learners and affects performance. Thus, they suggest that "these decoding problems are therefore expected to cause most processing load for French participants in a test with oral stimuli" (p. 9). As a result, both German and French learners of Dutch were able to acquire dummy-subject constructions but the French learners had more processing problems, which led to a poorer performance on the imitation task. This is likely due to the typological distance between German and Dutch which is smaller than the one for French and Dutch. In a subsequent study, performance of L2 Dutch syntax by native speakers of Turkish was analyzed. Turkish is a language typologically unrelated to Dutch and it was expected that the effect of L1-L2 pairing would be clearer. The hypothesis was supported in that although German and French natives did perform about equally well in the acquisition of dummy-subject constructions, the Turks performed the worst. The L1 influence was even greater in the imitation task: eight German, three French and no Turkish learners of Dutch fell within the native speaker range. Thus, once again, we have clear evidence to suggest an influence of L1 on nativelikeness.

Johnson and Newport (1989), on the other hand, found no such L1-L2 pairing effect with L1 Korean or Chinese and L2 English, which leads them to conclude (although they do acknowledge a limited role of L1 in L2 learning), that age effects are generalizable to all L2 learning regardless of L1-L2 pairing. However, one should be careful in making such a generalization for other languages. The importance of L1-L2 pairing in relation with the claims of the CPH, lies in that if age-related learning effects are biological in nature, then L1-L2 pairing should not matter (Birdsong & Molis, 2001). Thus, in order to make conclusive claims about L1-L2 pairing effects, only fine-grained

research on L1-L2 typology and their related effects on performance should be of significance.

2.7.5 Length of residence

One of the factors used to predict L2 ultimate attainment is the length of residence (LOR) of L2 learners in the target language country, that is, the number of years immigrants (i.e., L2 learners) have resided in that country. It would not be very surprising to believe that a longer LOR would result in higher L2 proficiency. This should be especially so when it is generally assumed that there is a positive correlation between a longer LOR in the target language country and the amount of L2 input (Flege & Liu, 2001). The criterion for the number of years of residency necessary for a learner to reach the end-state of L2A varies between a minimum of 5 years (Birdsong & Molis, 2001), to a maximum of 10 years or more. Thus, McDonald (2000) accounts for the difficulties of her late Spanish acquirers with grammaticality judgment tests by recognizing that their mean LOR of 4 years may not have been enough for them to have reached their end-state. On the opposite side of the spectrum, the nativelike learners in van Boxtel, Bongaerts, and Copen, (2003) were all at end-state with an LOR of at least 9 years (with a mean LOR of 15 years). With regard to methodology in L2A research, an LOR of 10 years should be desirable, if possible, in order to ensure that the learners have reached their end-state of acquisition.

Contrary to common beliefs, studies examining the effect of LOR on L2 performance have mostly failed to show a positive correlation between L2 phonology accuracy or L2 morphosyntax and LOR.

In the area of phonology, Moyer (1999) observed the correlation between the native English speakers' foreign accent in German and LOR to be inconsequential. LOR for the subjects ranged from several months to several years with a mean of 2.7 years (which does not satisfy the criterion of 10 years for end-state) and it did not correlate with a better mean rating for accent for those subjects immersed longer ($r= -.03$, $p= .88$).

The author suggests that the low correlation between LOR and L2 proficiency is explained by the fact that not all L2 input becomes "intake", some are fossilized and never become internalized. As she puts it, "the potential discrepancy between exposure versus intake or, similarly, length of stay versus focus on form should be emphasized. Fossilization or stagnant variability may become […] and persist in spite of consistent and plentiful input" (p. 88).

Flege and Liu (2001) cite several relatively recent studies which have shown the non-influencial effect of LOR on L2 performance. For example, Flege (1993) did not observe significant differences in the production of English phonetic segments by groups of Chinese adults with average LORs in the United States of 1.2 and 5.5 years. Flege, Munro and Skelton (1992) observed no significant differences between groups of native Mandarin adults with LORs averaging 0.9 and 5.5 years, or between groups of native Spanish adults with average LORs of 0.4 and 9.0 years.

In the area of morphosyntax, McDonald (2000) performed correlation analyses between independent variables, showing that LOR highly correlated with AOA for the Spanish and Vietnamese groups, showing evidence of an effect of confounding variables on L2 performance. It was also observed that AOA was a better predictor for overall syntactic accuracy than LOR for Spanish speakers. For Vietnamese speakers, however, while overall performance was best predicted by AOA, a subset of lexically-based rules was found to be more influenced by LOR, suggesting that performance on those lexically-based rules of an L2 grammar can improve with longer LOR.

In an earlier study, Johnson and Newport (1989) had found no such differences. From the results of the grammaticality judgment test of English administered to native Korean and Chinese speakers and their correlation analyses, it was shown that test scores and AOA correlated significantly, whereas test scores and LOR did not. Moreover, contrary to other studies, a lack of correlation was observed between AOA and LOR. The authors suggest that LOR affects L2 performance only during the first few years of exposure and that people do not continue to improve over time, attributing to AOA the only possible predictor of performance.

However, the findings of Flege and Liu (2001) on the L2 English proficiency of native Chinese speakers have shown that, in some instances, adults' L2 performance does improve with a longer LOR. This is the case when LOR is associated with substantial amount of native speaker input (assessed by the number of years of formal education in the U.S). Non-students are likely to have received less English-language input than the student group, suggesting that it is LOR confounded with other factors that can determine ultimate attainment, and not LOR alone, as the independent variable. Overall, across all three experiments, higher scores were obtained for subjects (students and non-students) with long LORs than for those with relatively short LORs. Averaged over the two groups of long and short LORs, higher scores were also obtained for the students than for the non-students, except in one experiment. Moreover, a significant two-way interaction was observed between LOR and occupational status. The effect of LOR was significant for the students but not for the non-students. Students with long LORs obtained significantly higher scores than the non-students with long LORs did. However, the difference between students and non-students with short LORs was non-significant (except for one test). These results suggest that a longer LOR by itself cannot account for higher performance. As they conclude, "simply living in the United States for an additional 5 years is not sufficient to enable adults from China to perceive word-final stop consonants more accurately", nor did it "increase the Chinese participants' knowledge of English morpho-syntax", nor did it "result in an improved comprehension of English" (p. 539, 541, 543). Since a significant effect of LOR was observed only for the students and not for the non-students, amount and type of input, confounded with LOR may explain the higher performance by the students.

In sum, it appears that it is LOR confounded with other variables, such as amount and type of input, rather than LOR alone that predicts L2 performance. Immigrants to an L2 country vary greatly in terms of how much input they receive, what kind of input they receive (the quality of input), how much they use the L2, how much contact they have with native speakers of the L2, and so forth. For example, adult students may have more

contact with native speakers of the L2 and more authentic input than immigrants working in the home and using English with other non-native speakers of English. They may also have more opportunities to use the L2 than non-students. This difference in the interaction of variables may explain why "some adult immigrants who have lived for decades in an L2-speaking country never learn to speak the L2" (p. 531), whereas others reach a nativelike level of performance in some areas of the L2.

2.7.6 Training and instruction

Despite the controversy behind the long-term and short-term benefits of focus-on-form instruction or training before testing and the types of instruction (formal or naturalistic), most studies (see Ellis, 1994; Ioup, 1995; Marinova-Todd, Marshall, & Snow, 2000) seem to suggest that instruction and specific training on a particular construction or item have long-term benefits in L2 acquisition.

The direct effects of instructional variables on the performance in L2 syntax have not been studied extensively yet. In an early study by Patkowski (1980), the effects of hours of formal instruction in English on proficiency were examined for pre-and post-pubescent learners of English. He found that there was little relationship between their syntactic rating and the practice and instructional variables, suggesting that the learning of L2 morphosyntax is constrained by age of acquisition. But generally, instruction has been shown to help L2 performance to reach higher levels of ultimate attainment.

In the area of phonology, most research has given evidence for the positive consequences of instruction on ultimate attainment. For example, Moyer (1999) examined the effects of instruction and training on the pronunciation of L2 German by native speakers of English. Several variables, such as age of immersion and motivation, correlated significantly with outcome, including supra-segmental training, which indicated performance closer to native level. As a matter of fact, the presence of segmental plus supra-segmental feedback correlated with a closer-to-native rating in a predictably constant relationship. For the author, overt phonological training, authentic

input and feedback are determining factors, necessary for some learners to acquire nativelike phonological production.

Similar results were observed by Bongaerts, Planken, and Schils (1995). They found that nativelike L2 pronunciation by adult learners is possible, and that one of the factors determining success in the area of L2 pronunciation was intensive training. A closer analysis of the instruction variable of those successful L1 Dutch learners, who could pass themselves off as native speakers of English, showed that they had received pronunciation tutorials with intensive training in the pronunciation of the RP (i.e., Received Pronunciation) variety of British English. Those who scored the closest to a nativelike level were university students majoring in English who had received special training in phonetics and pronunciation. Similarly, in his other studies (Bongaerts, 1999; Bongaerts, van Summeren, Planken, & Schils, 1997), the highly successful learners had all received intensive training both in the perception and the production of the speech sounds of British English.

In a study by Birdsong (2003a), two of the 22 English speaking subjects were nativelike in their pronunciation of L2 French. It was found that one of the factors contributing to nativelike attainment was the phonetic training they had received (the other factor being motivation). One of the learners had taken a university-level course in French phonetics, whereas the other, had often received corrective feedback in her pronunciation of French from her friends.

It is important to note that the instruction and training factor is not enough to guarantee nativelike ultimate attainment in an L2 (Birdsong, 2003a). Each case is specific in that the effects of instruction might be different depending on the learners, suggesting that its effects are the greatest when confounded with other factors. These factors should not be considered as sine qua non for authenticity. However, it is clear from our discussion, that, overall, instruction has a beneficial effect on L2 ultimate attainment and seems necessary to reach nativelikeness.

2.7.7 Formal education

For adult immigrants coming to an L2 country, it is likely that the L2 learners will receive formal education in the target language country and the amount of education in the L2 country has been proven to predict ultimate attainment in the L2. Flege, Yeni-Komshian, and Liu (1999) observed that the longer the Koreans attended school in the U.S., the higher their grammaticality judgment test scores tended to be for those rule-based aspects of the grammar, which are taught in formal classes. LOR and performance correlated significantly, as well as years of education in the U.S. and performance. AOA and performance also correlated significantly, but the correlation became non-significant when the effects of years of education and LOR were partialled out. Thus, as with other factors reviewed earlier, a combination of factors, including LOR and amount of formal education, seems to predict the level of ultimate attainment in the L2.

2.7.8 Aptitude

Some researchers have attributed the ability of exceptional learners who perform nativelike in their L2 to the presence of aptitude for learning the L2. As Bongaerts et al. (1997) point out, "there is some evidence that "superexceptional" learners exist […] who beat the predictions of the critical period hypothesis" (p. 450). Robinson (2001) posits that aptitude in language learning is predictive of ease of certain types of L2 learning.

For example, Schneiderman and Desmarais (1988) found two native speakers of English with successful ultimate attainment, who were judged to be from a French-speaking region by French native speakers, as well as another subject who could pass for a native speaker of Spanish. Novoa et al. (1988)'s successful learner who had acquired French, German, Italian, Moroccan Arabic, and Spanish after the age of 15 was judged as native by native speakers of each of his languages. The two subjects reported in Ioup et al. (1994) and Ioup (1995), who were native English speakers who acquired Egyptian Arabic as adults, were rated as native speakers by 62% of the judges. For all these successful learners, the factor that apparently distinguishes them from the "normal"

population, is their high level of aptitude for foreign language learning. However, there is no robust evidence of the effect of aptitude in foreign language learning on ultimate L2 attainment.

DeKeyser (1999) found, in a test of English morphosyntactic knowledge, that among the late AOA L1 Hungarian-L2 English learners at end state, three of the four best performing learners had received high scores on a foreign language learning aptitude test. However, many of the high-aptitude learners did not perform well on the morphosyntactic test, and one of the nest performers did not perform well on the aptitude test. These findings raise some doubt on the effect of this trait.

It should be pointed out that aptitude, or a general cognitive functioning, is not a necessity in successful, exceptional L2 learning (see Ellis, 1994). Moreover, if language aptitude constituted a relevant factor in L2 acquisition, there should be caution in that it should not be interchangeable with some other factors (also in Ellis, 1994). Thus, aptitude is conceptually and empirically distinct from achievement and also separate from motivation. Aptitude is a stable factor, maybe innate, that cannot be altered (through training, for example), and should not be a requirement for L2 acquisition, as all learners, irrespective of their aptitude, can reach high levels of performance. It should also be distinct from general intelligence, even though intelligence can be an important part of aptitude. Aptitude should then be taken as a "capacity that enhances the rate and ease of learning" (Ellis, 1994, p. 495), with the ability to predict the rate of learning, not the ultimate attainment of L2 acquisition.

In sum, as Birdsong (2009) notes, strengths in these affective and experiential factors are not *sufficient* in themselves to guarantee high levels of achievement or nativelikeness. However, they are *necessary* conditions such that in the absence of such strengths, nativelikeness is unlikely. Among these, high levels of motivation, linguistic training, amount of L2 use, and education in the L2 environment are likely to characterize learners with high levels of nativelikeness in the L2 (Birdsong, 2009).

We now turn to a specific area of language acquisition, that of L2 lexicon.

2.8 THE ACQUISITION OF L2 LEXICON

Despite its importance as a key component of language, the study of L2 lexicon has generally been neglected in mainstream second language acquisition research vis-à-vis other aspects of learning, such as L2 phonology, morpho-syntax or pragmatic features. As Ellis (1985) acknowledged: "SLA refers to all aspects of language that the language learner needs to master. However, the focus has been on how L2 learners acquire grammatical sub-systems […]. Research has tended to ignore other levels of language. A little is known about L2 phonology, but nothing about the acquisition of lexis" (p. 5). Haastrup and Henriksen (2001) also note that there has always been "a dominance of syntax over lexis in models which claim to offer general accounts of second language acquisition" (p. 70). However, as Juffs (2009) points out, "understanding the lexicon is vital to any theory of SLA" (p. 181). The reason for it is that the lexicon not only encodes phonological and morphological information that is vital in identifying contrasts in meaning, but it also stores both important syntactic information in verb argument structure and concepts. Whereas theories of morpho-syntax can change over time, Jackendoff (2002) asserts that almost all theories of language agree on the fact that the lexicon is the one unchanging element in the whole system of language in that it contains items with "a long-term memory association of phonological, syntactic and semantic features" (p. 130), and for concrete objects, even visual-spatial structures.

The importance of the study of L2 lexicon is also evident in L2 communication per se. Gass and Selinker (2001) observe that lexical errors constitute the bulk of L2 errors and that both learners and native speakers view lexical errors as the most serious disruptive obstacles to communication. For Levelt (1989), the L1 lexicon is the "driving force in sentence production" (p. 181) since it mediates conceptualization and the encoding of grammar and phonology. Gass and Selinker (2001) extend this idea to L2

concepts and posit that "in general, there is good reason to believe that the lexicon is an important factor, if not, the most important factor, in accounting for the bulk of second language data, in that the lexicon mediates language production" (p. 373).

Since the mid 80's, the study of L2 lexical acquisition has gained much attention in the literature and has been investigated by different strands of research. Psycholinguists such as Kroll and her colleagues (Kroll and de Groot, 1997; Kroll, Tokowicz and Dufour, 2002; Kroll and Sunderman, 2003) and Jiang (2000, 2002) investigate the relationship between L1 and L2 forms, meaning storage, and processing. Researchers with a connectionist view of the lexicon emphasize the role of frequency in acquisition of words and grammatical patterns (Ellis, 2002, 2005). Those who stress the importance of verb meaning and morpho-syntax look at how cross-linguistic differences in the lexicalization of concepts can affect morpho-syntax (Juffs, 1996, 2000; Hirakawa, 2001, 2006; Montrul, 1999, 2001; Toth, 2000; Yuan, 1999; Zyzik, 2006). Pedagogical researchers such as McCarthy (1994) and Nation (2001) focus on the learning of words in instructional contexts based on the frequency of words and collocations, rather than their semantic representations. Finally, sociocultural researchers such as Vygotsky (1986) and Lantolf and Thorne (2006) look at how participation in a culture affects concept development. For our interest, studies of age and L2 lexical acquisition have not been the focus of mainstream L2A literature compared to studies on L2 phonology and morphosyntax, as pointed out by Singleton (2005): "the age factor, as it relates to second language lexical acquisition, is not a matter that receives a great deal of attention" (p. 10). Long (1990) also points out that studies of ultimate attainment in the area of L2 lexicon is even rarer. There are only six of these studies in the literature according to Hellman (2008). We will discuss some of these studies in a later section.

But before a review of those studies, the next section is aimed at giving an overview of different monolingual models of the lexicon and the conceptual representation in the bilingual lexicon. In other words, we first focus on the *what* of knowing the lexicon and the *how* of using it in the monolingual and bilingual mind.

2.8.1 The mental lexicon

The question of interest here, in a formal sense, is what is represented in a lexical item, or simply, what is (or should be) learned when one learns a new word. According to Levelt's (1989) basic model of lexical representation (see Figure 1), each root word has a lexical entry in the mental lexicon and each lexical entry contains four types of information in two components: semantic and syntactic information in the lemma component, and morphological and formal information in the lexeme component.

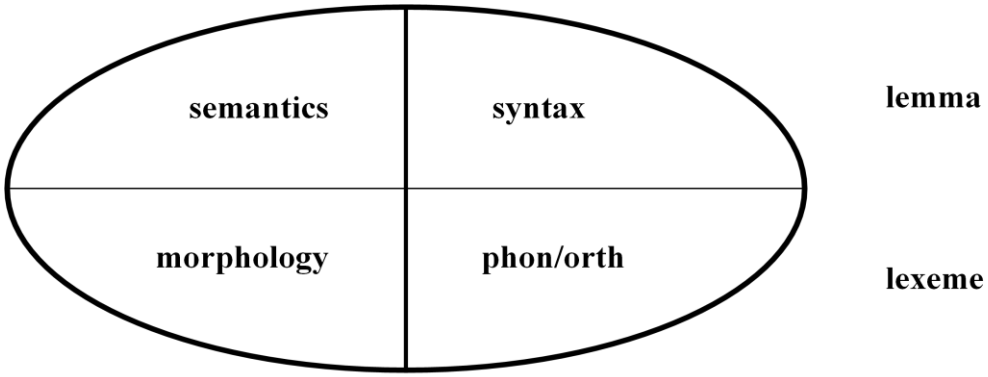

Figure 1. The lexical entry in the mental lexicon (adapted from Levelt, 1989)

Juffs (2009) notes that beyond this basic model, disagreements still remain on how the internal structure of each cell in Figure 1 is represented and learned. Without going into further details about these differences, which is beyond the scope of our discussion, it is important to point out, based on Garrett's (1975) original claim that a word's syntactic and morphophonological specifications are stored separately from each other in the mind, that although the information in each cell is linked by a "subscript" (Jackendoff, 2002b, p. 27), it can be stored, manipulated and learned separately (Jackendoff, 2002a, 2002b). As Juffs (2009) states: "it is worth repeating and emphasizing that a lexical entry is not a

single, indivisible ‘slot’ or chunk in a list” (p. 183). This split or independence allow for theories of language and language development to explain cases where a form is recognized, but not linked to a meaning and vice-versa. This claim is also vital for psycholinguists such as Kroll and Jiang, who assume that L1 and L2 lexical forms (phonological and written) can be stored independently of syntax and conceptual structure.

Taking an example from Juffs (2009) (discussed originally in Jackendoff, 2002b), the basic lexical information on the lexical item ‘sit’ would include information on:

(a) Form (phonology): /sɪt/ [Note: contrast with other words: /hɪt/, /sɪn/, etc…]
(b) Syntax: category [V], intransitive: unaccusative: V _ <1> ([PREP: in/on/down/down on]); (transitive - rare)
(c) Meaning (concept): go from standing or lying down to a seated position (intrans.); to place something in a seated position (trans.)
(d) Morphology: /sɪt/: related words: /sæt/ - past; /sɪtɪŋ/ - progressive/gerund (p.183).

Beyond the four dimensions of form, syntax, meaning/concept, and morphology, other aspects about what can be known about a word have been compiled by Nation (2001) and summarized by Jarvis (2009).

Knowing a word means not only recognizing and retrieving the word from memory, but also knowing:

(1) how the word is spelled and pronounced in its various forms,
(2) the word’s meaning(s),
(3) its grammatical class and its syntactic constraints,
(4) its collocations and syntagmatic associations (i.e., the words it tends to occur with),

(5) its lexical and conceptual associations (i.e., the words and meanings it is associated with that are not part of its collocational frame or denotational meaning), and
(6) how frequently the word occurs in the language, how formal it is and in which registers of the language it can be used appropriately and conventionally (Jarvis, 2009, p. 100).

Nation (2001) groups aspects of word knowledge into three categories: form, meaning, and use. Form refers to the familiarity with the spoken, written form of a word, as well as knowledge of word parts (morphological forms). Meaning refers to understanding the referent the word is associated with, the concept the word is placed in and other associations the word may go with. Use refers to knowing the grammatical patterns the word occurs in, its collocations (other words that typically co-occur with the word), and socio-linguistic and pragmatic constraints governing the use of the word (such as frequency, dialect, or register).

An example of knowing the word /kæt/ (Nation, 2001, p. 27):

(a) Form

Pronunciation:	/kæt/ → [k^hæ t]
Written (spelling):	'cat'
Word parts:	Cat-s, but presumably not 'catty'.

'Catty' is derived from 'cat', but means something different, i.e. 'spiteful' or 'mean-spirited'. This is typical of the difference between inflected and derived forms of a word, where derived forms involve 'semantic drift' away from the core meaning of a word. Such drift may be culturally specific – some cultures may not associate qualities such as 'mean' and 'spiteful' with cats.

(b) Meaning: feline

What is included in the concept: domestic feline and wild feline

Associations: dog, tiger, lion, kitten, etc.

(c) Use

Grammatical patterns: the cat; a cat; etc. 'rain cats and dogs', 'cat-call', 'big cat', 'alley cat', etc.

Collocations: cats and dogs; domestic cat; wild cat, etc.

Constraints: register: cat vs. feline creature, etc.

2.8.2 L2 lexical acquisition

Because so much is involved in knowing a word, as seen in the previous section, it is worth characterizing the dimensions of lexical knowledge, in reference to lexical acquisition; in other words, what can be counted as lexical acquisition? In the literature, the two primary dimensions of lexical acquisition are the breadth and depth of vocabulary (Nassaji, 2004; Read, 2000, 2004; Vermeer, 2001; Qian, 1999; Nation, 1990). Breadth refers to the size of the vocabulary and depth refers to the quality of word knowledge. Although breadth has received the most attention, depth of word knowledge is an important aspect that can indicate the degree to which words have been integrated into a lexical network. As Qian (1999) and Nation (2001) point out, depth of word knowledge refers to familiarity with pronunciation, morphological and syntactic properties and discourse features, which necessarily overlap with other language domains (phonology, morphosyntax, pragmatics).

Aside these two basic dimensions, others have been proposed, such as fluency or automaticity of access (Meara, 1996; Laufer and Nation, 2001), mastery (Nation, 2001; Henriksen, 1999), or strength (Laufer and Goldstein, 2004), with each construct relating to the level of access the individual has to the acquired word knowledge.

2.8.3 Models of the lexicon

Singleton (1999) offers a critical review of some of the influential models of the lexicon, such as Morton's logogen model (Morton and Patterson, 1980), Marslen-Wilson's cohort model (Marslen-Wilson, 1990), Forster's search model (Forster, 1989), Levelt's blueprint model (Levelt, 1989), Fodor's modularity model (Fodor, 1983, 2000), Rumerlhardt and McClelland's brain metaphor model and many others. A valuable summary of some these models are offered in Hellman's (2008) dissertation so this will serve as a review, followed by a discussion of Ullman's declarative/procedural model of the lexicon, as it is a very promising emerging model. For a discussion on bilingual models of the lexicon, Kroll and de Groot (1997), Kroll and Sunderman (2003), Murre (2005), and Kroll and Tokowicz (2005) offer a good review. Based on an introduction of Kroll and her colleagues' model, the revised hierarchical model, which has received relatively considerable support from experimental and clinical studies (Kroll and Stewart, 1994; Kroll and De Groot, 1997; Singleton, 1999; Poulisse, 1997; Grosjean, 1997), I will extend the discussion to a second dominant model, the distributed feature model. Finally, a new model proposed by Pavlenko (2009), the modified hierarchical model, that captures the strengths of the previous models is introduced.

Below is an overview of both monolingual and bilingual models of the lexicon (Table 1), adapted from Hellman (2008a).

Table 1. A summary of better-known models of the lexicon (adapted from Hellman, 2008a)

Model of the Lexicon	Theoretical Framework	Synopsis	Source
Logogen model	Information processing	The mental lexicon is composed of words that are encapsulated in information units (logogens) and processed as a unit within the various interface systems (phonological input/output, visual input/output).	Morton and Patterson, 1980

Table 1 continued

Cohort model	Information processing	Words are connected into larger cohorts based on acoustic relatedness. Entire cohorts are activated at once; word recognition occurs at the point when all non-matches are turned off and only one activated match remains.	Marslen-Wilson, 1990
Search model	Information processing	Words in the mental lexicon have various peripheral access files that allow them to be searched by their phonology, orthography, syntactic and semantic relationships. These access files contain pointers to a master entry of the word. Once the master file is accessed, various operations with the word become possible.	Forster, 1989
Blueprint model	Adaptive control of thought (Anderson, 1983)	The language processing system includes declarative ('knowledge that') and procedural ('knowledge how') components. One of the declarative components of language is the lexicon, which has a central role as a mediator between the speech comprehension and message encoding systems.	Levelt, 1989
Modularity model	Modularity theory	Mental functions in the mind are highly specialized; the architecture of these specialized units (modules) is innate. The lexical network, as other modules, is informationally encapsulated. The connection of lexical items is non-semantic, based on general contextual effects.	Fodor, 1983, 2000
Brain metaphor	Connectionism	Neural patterns are created based on statistical learning, which is the forming of patterns that are the result of constant computation of the input. The lexicon is a neural net with massive connections that have been generated by statistical learning.	Rumelhardt And McClelland, 1986

Table 1 continued

Town map analogy	Connectionism	The brain is an organically evolved multidimensional organizational system (town map) in which lexical items are coded and arranged differently within the various linguistic and cognitive subsystems (towns). The primary relationship between lexical items is semantic.	Aitchison, 2003
Hard drive metaphor	Minimalist program (Chomsky, 1995)	The mental lexicon is lexical items put in long-term storage, as if data stored on a hard drive; it is not an elegantly organized system; some items are centrally organized, others are scattered on the peripheries.	Jackendoff, 2002
Boolean network model	Random autonomous Boolean networks (Kaufman, 1993)	The lexical network operates autonomously based on a very simple predetermined pattern of response to input. The network quickly stabilizes into a state (attractor state) in which a small number of words are permanently activated.	Meara, 1999
Declarative/ procedural model	Hybrid of connectionist and nativist/ modular linguistic theory	The lexicon and grammar are subserved by distinct neural subsystems. Computational processes are characteristic of special neural subsystems. The lexicon is part of the associative memory system (declarative memory), which characteristically computes statistical patterns; grammar is embedded in the procedural memory system, which performs symbolic, rule-based manipulations.	Ullman, 2001
The bilingual adaptation of Levelt's Blueprint	Adaptive control of thought	In bilinguals, both languages may be simultaneously activated in the mental lexicon on the lemma level. A lexical checking device controls whether the L1 or L2 encoding gets further processing and is eventually articulated.	Poulisse and Bongaerts, 1994

Table 1 continued

Revised hierarchical model	Competition model (Bates and MacWhinney, 1989)	The L1 lexicon, l2 lexicon, and conceptual representations form an symmetrical triangular relationship, where L1 is strongly tied to L1. With developing proficiency, the L2 lexicon's word-to-word relationships weaken as new word-to-concept relationships develop.	Kroll and Stewart, 1994

2.8.4 Ullman's declarative/procedural model of the lexicon and grammar

Based on neurolinguistic and psycholinguistic evidence, Ullman (2001) proposes a hybrid modular-connectionist model by which he posits that the lexicon/grammar distinction in language is related to the distinction between two brain memory systems, the associative memory system of the temporal lobe and the rule-computing system of the left frontal/basal-ganglia. The two systems are modular in that they are distinct in their neuro-anatomy and they perform domain-specific computational processes, with neither system specific to language. The associative memory system is subserved by temporal-lobe circuits implicated in the learning and use of facts and events. The memorization and use of simple words (i.e., noncompositional words) depends on this system which is specialized for the learning of arbitrarily related information and is sensitive to frequency of input as well as co-occurrence (e.g., phonological neighborhood effects). This system is also called declarative memory because the content of this memory can be subject to conscious recollection. The rule-computing system is subserved by frontal basal-ganglia circuits implicated in the implicit (nonconscious) learning and performing of habits and cognitive skills, from simple to complex motor acts, such as moving, walking, driving, speaking, and processing grammar. This system is also called the procedural memory because this kind of learning involves symbol manipulations (i.e., computation of sequences) via rules and constraints.

According to Ullman's model, the lexicon is one of the functions of the associative/declarative system of the left temporal lobe, and morphosyntactic

computation is a function of the rule-computing/procedural system of the left frontal/basal-ganglia. The lexicon is, thus, built by "an associative memory of distributed (but structured) representations" (Ullman, 2001, p. 38) that is not unique to language, but used for organizing and processing events and facts of everyday life. Grammar, or morphosyntactic operations that involve symbolic manipulation of words (or events, facts) such as sequencing and structuring, takes place in the procedural system.

Ullman's view of lexicon and grammar is an alternative to the two main competing models. With Fodor and Jackendoff's modularity model, it shares the view that the mental lexicon and the symbol-manipulating mental grammar are subserved by different computational components, thus, different brain structures. On the other hand, it differs from the modularity model in that the mental lexicon is not simply a "hard drive" where facts are stored by rote memorization. For Ullman, it is an associative system adjusted by the frequencies and probabilities of the input. The mental lexicon computes the distribution of lexical items, creates and stores mappings, which are generalized to new similar contexts without generating rules, but patterns that are recognized and stored. Rules (and constraints), or symbol manipulation and transformations actually take place in the mental grammar in the frontal lobe. Compared to the connectionist model, Ullmans' model shares the view that the two capacities are subserved by domain-independent computational mechanisms. However, it diverges from the connectionists' perspective that both capacities are linked to a single associative memory with "broad anatomic distribution" (Ullman, 2001, p. 37). Ullman posits the existence of a procedural, rule-based system, which resides outside the mental lexicon.

Evidence for Ullman's (2001) declarative/procedural model was found in his psycholinguistic studies of frequency and neighborhood effects, and neurolinguistic studies of patients with aphasia, Alzheimer's disease, Parkinson's disease, Huntington's disease, Specific Language Impairment and Williams syndrome, as well as laboratory studies of electroencephalography (ERPs), magnetoencephalography (MEG) and neuroimaging with PET and fMRI. Studies by other researchers have showed evidence to support Ullman's (2001) model. One example is an event-related fMRI (ER-fMRI) study

by Beretta et al. (2003). By mapping the lexical activation of regular and irregular word forms (while frequency was controlled), they found that both regular and irregular forms caused activation in both the left temporal lobe (i.e., in the associative system for the mental lexicon) and the frontal lobe (i.e., in the procedural system for the mental grammar), but irregulars caused greater brain activity in both areas. This result can be explained by the fact that when a past tense form is produced, two parallel processes take place: 1) the mental lexicon searches for a stored form, 2) the mental grammar performs a computation to produce the form with a rule. If the mental lexicon can produce a form, then the one produced by the rule-based computation is inhibited. Inhibition of the rule-based production requires greater mental effort than performing the automatized, rule-based operation.

As a summary, Ullman's declarative/procedural model offers the most valuable insight and explanation of the mental lexicon. In this view, the mental lexicon is located in the temporal lobe linked to the associative memory system. The associative system subserves not only the mental lexicon, but the mapping, learning, and storing of arbitrarily related information, such as facts and events. Any lexical information is processed in parallel by both the mental lexicon and the mental grammar, which performs automatized, rule-based computations and is located in the left frontal/basal-ganglia. The mental lexicon and mental grammar communicate with each other and thus, when the mental lexicon satisfies the search of a lexical information, the rule-based automatic operations are inhibited.

2.8.5 L2 lexical representation and processing

A central question in the research on cognitive processing in bilinguals is whether they represent their two languages in separate or common memory systems. In other words, how many lexicons do they possess? Is there a separate store for each language (i.e., in a co-ordinate structure), or just one common store (i.e., in a compound structure), where the lexicon of the second language is somehow dependent on the structure of the

first? (Weinreich, 1953). Psycholinguistic studies of concepts in the bilingual lexicon commonly rely on a variety of reaction-time tasks, such as lexical decision, semantic priming, sentence priming, picture naming, translation, translation equivalent recognition, word association, semantic categorization, and the Stroop interference task (De Groot, 1992; Kroll, 1993, Snodgrass, 1993).

2.8.5.1 The Revised Hierarchical Model

Based on the model of the lexicon in Figure 1, and the assumption that a form can be dissociated from its meaning (see Kroll and de Groot, 1997; Kroll and Sunderman, 2003, and Kroll and Tokowicz, 2001 for an overview), recent psycholinguistic research, which focus on adult learners of a second language, provide converging evidence for a hierarchical model of the representation and processing of L2 words in the bilingual lexicon, which proposes that words are represented in different languages separately at the lexical level but share a common representation at the conceptual level (see Figure 2). The hypothesis has received considerable support from experimental and clinical studies (Kroll & Stewart, 1994; Kroll & De Groot, 1997; Singleton, 1999; Poulisse, 1997; Grosjean, 1997).

The two alternative hypotheses are the common-store hypothesis and the separate-store hypothesis, which correspond to the word association model and the concept mediation model, respectively (Potter et al., 1984). In the common-store hypothesis, there is one lexicon and one semantic memory system where words from both languages are stored (McCormack, 1977). L2 words are mediated via direct connection to their translation equivalents in L1 (i.e., word association). In daily life, a bilingual who can translate from one language to the other at will support this hypothesis, along with data from laboratory experiments. The separate-store hypothesis holds that there are distinct memories for each language so that information processing in one language does not automatically affect processing in the other language (Kolers, 1963). In this concept mediation model, L2 words are connected directly to their meanings without L1

mediation. The fact that a bilingual can function independently in one of their two languages with little interference from the other language support this hypothesis, along with evidence from neuropsychological studies and data from Repetition Priming studies.

However, neither of the two hypotheses seems to describe completely the bilingual lexical representation. One reason for it is that various experimental tasks emphasize different processes (Gerard and Scarborough, 1989). In other words, in general, findings with tasks that emphasize surface attributes support the separate-store hypothesis while findings with tasks that emphasize semantic or conceptual attributes support the common-store hypothesis (Durgunoglu and Roediger, 1987). Taylor and Taylor (1990) also suggest that tasks that emphasize processing of words for their meaning rather than for their forms seem to lead to results that support the common-store hypothesis while tasks that tap the forms of words or associative links between words seem to favor the separate-store hypothesis. Finally, Durgunoglu and Roediger (1987) found results supporting both hypotheses by varying task demands. In addition to types of tasks, types of words used as stimuli in studies on bilingual lexical representation also result in different findings. As pointed out by Taylor and Taylor (1990), the words that are most used as stimuli are frequent, concrete words that have clear translation equivalents between the two languages studied. A few studies in which different types of words were used (cognates versus non-cognates, concrete words versus abstract words, culturally similar words versus distinct words) showed that concrete words, cognates and culturally similar words tend to act as if they are commonly stored, whereas abstract words, non-cognates, and culturally distinct words tend to act as if they are stored separately.

Another reason why the two alternative hypotheses cannot be held concerns the development of the bilingual lexicon. Potter et al. (1984) originally argued for the concept mediation model, even for learners at early stages of acquisition, based on a study of translation and picture naming that showed similar performance by learners and fluent bilinguals. However, later research (Kroll and Curley, 1988; Chen and Leung, 1989) showed a developmental transition from word association in the initial stages of L2

learning, to concept mediation as L2 fluency increases, such that meaning for L2 words can be accessed directly (Talamas et al., 1999).

According to the original claim, the initial reliance on L1 should lead to independent access for L2 at the lexical level, but the recurring evidence that even highly fluent bilinguals continue to rely on L1 during L2 processing (Chen, 1992; De Groot, 1993; Kroll, 1993; Kroll and De Groot, 1997; Kroll et al., 1998; Kroll and Tokowicz, 2001) led Kroll and her colleagues to propose the Revised Hierarchical Model (RHM) of bilingual lexical processing and conceptual representation (Kroll and Stewart, 1994; see Figure 2).

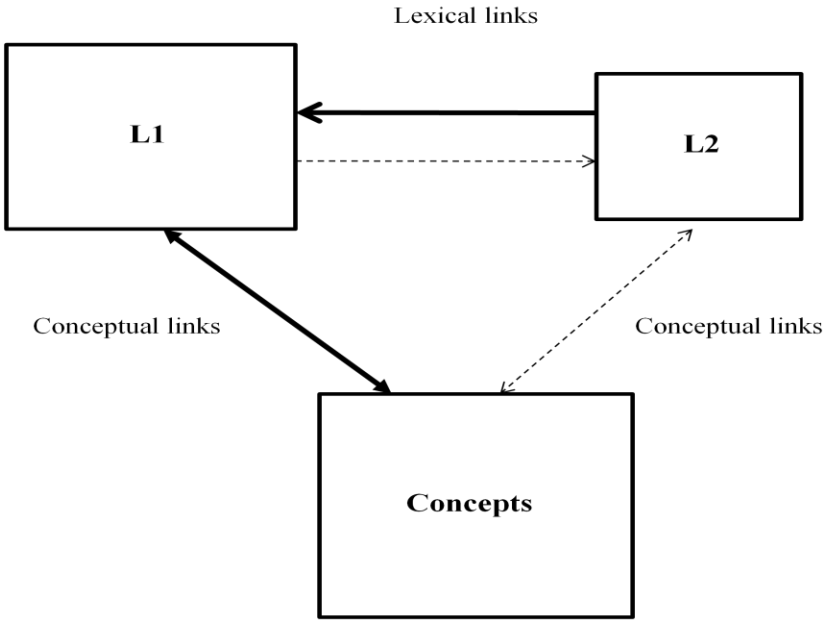

Figure 2. The Revised Hierarchical Model (adapted from Kroll & Stewart, 1994)

The model's theoretical framework is that words are represented in different languages separately at the lexical level but share a common representation at the conceptual level. In the early stages of L2 acquisition, L2 words are more strongly connected to their L1 translation equivalents than to concepts and conceptual access takes place via the L1

equivalents (i.e., lexical mediation). As L2 proficiency increases, the links between L2 words and concepts become stronger and learners rely more on direct links (i.e., conceptual mediation). Also, at the lexical level, the connections from L1 to L2 are not particularly strong because there is little need for the learner to use the L2 that way. Evidence for this model was found in Kroll and Stewart (1994) who demonstrated that highly fluent Dutch-English bilinguals performed translation tasks slower from L1 to L2 than from L2 to L1. They also found that only translation from L1 to L2 was influenced by the semantic information and that the absence of semantic effects in translation from L2 to L1 suggests that bilinguals can translate directly at a lexical level. Evidence from other experimental and clinical studies is also available in Sholl et al. (1995), Kroll and De Groot (1997), Singleton (1999), Poulisse (1997), and Grosjean (1997).

The strength of the RHM, as Pavlenko (2009) points out, is that it gives insight into the developmental change in the links between L2 and L1 word forms and lexical concepts. However, Pavlenko (2009) criticizes the fact that the model and similar models only works for words that have the same meaning in L1 and L2: "studies of conceptual access commonly favor words that appear to share meanings […] and in particular concrete words, assuming that appearances and functions of the entities they refer to 'will generally be the same in different language communities' (De Groot, 1995, p. 404) (Pavlenko, 2009, p. 129). In this regard, the RHM can only give account of cases of words that share conceptual categories (conceptual equivalence or near equivalence) in L1 and L2. For conceptual categories that are not fully or nearly equivalent, i.e., either partially equivalent or non-equivalent, the RHM does not allow the distinction between target- and non-target-like performance in mapping words to referents (we will return to the discussion of conceptual equivalence and non-equivalence in a later section on emotion words).

2.8.5.2 The Distributed Feature Model

Another model, the Distributed Feature Model (DFM) (De Groot, 1992, 1993; see Figure 3) captures the cross-linguistic difference between concrete and abstract words.

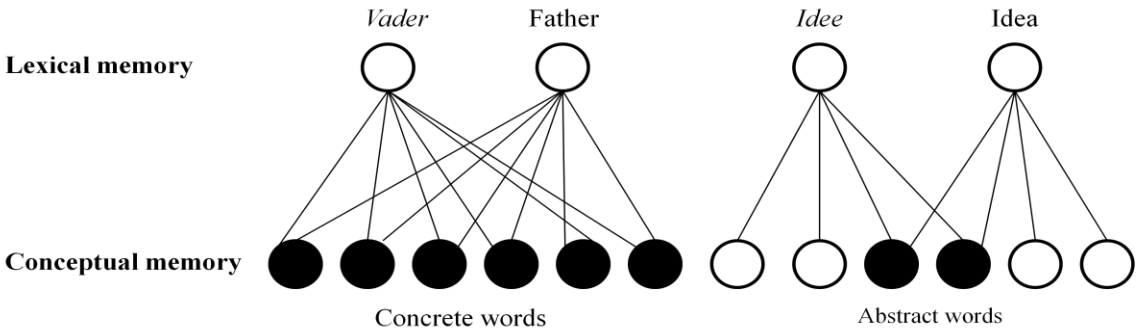

Figure 3. The Distributed Feature Model (adapted from De Groot, 1992, 1993)

From the finding that bilinguals translate concrete words and cognates faster than abstract words (De Groot, 1992, 1993, 1995; De Groot et al., 1994; Kroll & Stewart, 1994; Van Hell & De Groot, 1998), the DFM suggests that representations of concrete words and cognates are mostly shared across languages while representations of abstract words share fewer semantic features. Although the model accounts for cross-linguistic differences, it still shows weaknesses in four areas: 1) lack of a developmental component about the learning process of partial translation equivalents, 2) reliance on the feature-based approach that does not account for differences in core meanings and peripheral meanings (De Groot, 1992), 3) equating the strength of interlingual connections with the degree of shared meaning when strong connections may not always be a function of shared meaning, but determined by word frequency, cognate status and concrete words share meanings because they are translated faster than abstract words when in fact, studies suggest that some concrete words may also be linked to partially or distinct linguistic categories (Ameel et al., 2005, for example).

2.8.5.3 The Modified Hierarchical Model

Building on the RHM, Pavlenko (2009) proposes the Modified Hierarchical Model (MHM) (see Figure 4) that retains the developmental aspect of l2 learning from lexical to conceptual mediation and the idea of shared and partially shared representations.

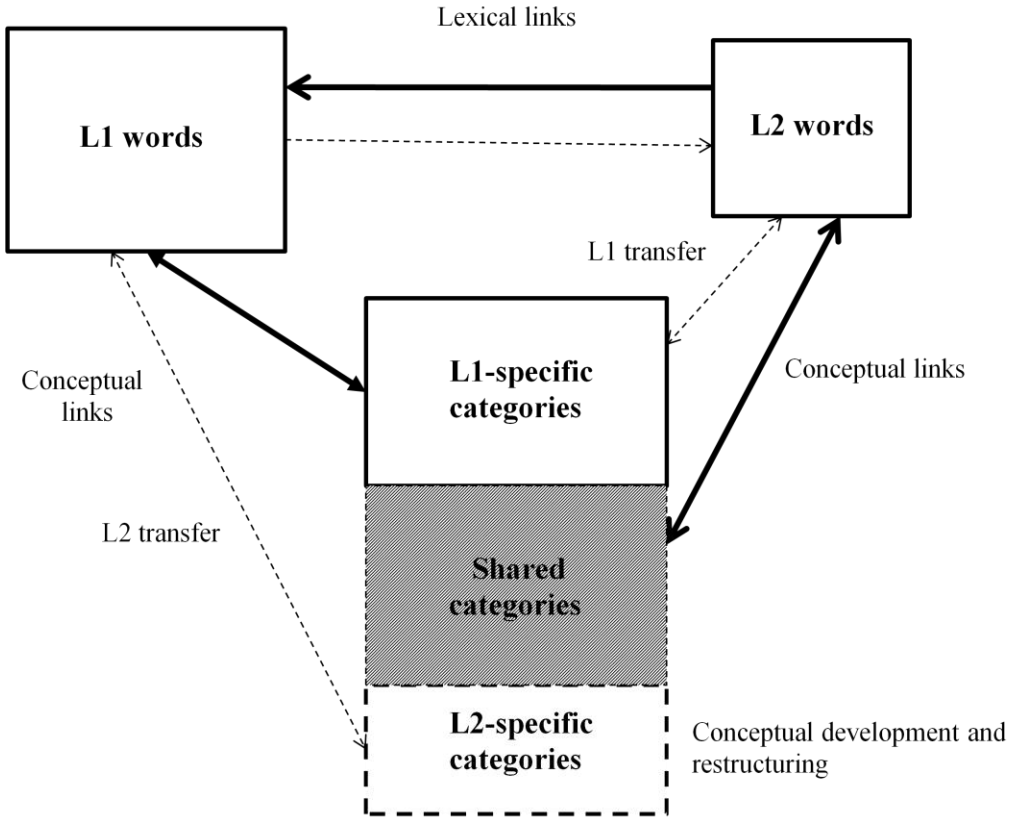

Figure 4. The Modified Hierarchical Model (adapted from Pavlenko, 2009)

The MHM differs from the other models in three aspects: the organization of the conceptual store, conceptual transfer, and L2 learning as conceptual restructuring. Contrary to the unified conceptual store of the RHM, the conceptual representations in the MHM may be either fully language-specific, partially shared, or fully shared (with L1

and L2 categories in Figure 4 representing conceptual nonequivalents and language-specific aspects of partial equivalents), such that lexical concepts such as *frustration* or *privacy*, that are language- and culture-specific can be recognized. The DFM would not be able to recognize these language-specific concepts. The model implies that breakdowns in fluency will occur when a language- and culture-specific lexical concept is being formulated, since only one language has the correct word form and thus activation of lexical links in the other language will fail (Pavlenko, 1997, 2003). In such cases where bilinguals try to use the lexical concept of one language as a conceptual category in the other language, they will rely on codeswitching, lexical borrowing or loan translation (Panayiotou, 2004; Pavlenko, 1997, 2002a, 2003; Pavlenko & Driagina, 2007). Thus, the 'shared categories' in Figure 4 include conceptual representations that are shared (or partially shared) both in different L1s, such as the English *cup* and the French *tasse,* leading to target-like performance in L2, and representations shared in the individual bilinguals but not in the monolinguals, leading to non-target-like performance. The second advantage of the MHM is that it recognizes conceptual transfer, based on the distinction between semantic representations and conceptual representations. Semantic representations, according to Pavlenko (1999), refer to mental links that map lemmas to concepts (i.e., how many concepts and which particular concepts) (e.g., polysemy, metaphoric extension), as well as lemmas to other lemmas (e.g. synonym, antonym, collocation, word association). Whereas semantic representations are at the level of links between words and concepts, conceptual representations are broader in that sense since they refer to mental images and categories of meaning: "concepts reflect the level of thought and experiential knowledge, and they consist of various types mental images, image schemas, mental scripts and forms of knowledge that are organized into structured categories of thought and categories of meaning" (Jarvis, 2009, p. 100).

This differentiation can explain the sources of transfer, conceptual versus semantic, and the mental process in L2 acquisition. Taking an illustration from Pavlenko (2009), when a Finnish speaker learning English produces the sentence *He bit himself in the language* (instead of 'He bit himself in the tongue') (Ringbom, 2001, p. 64), the error

consists of a semantic transfer (i.e., not involving the structure of conceptual categories) because the learner linked the Finnish word *kieli* ('tongue'), polysemic just like English (i.e., linked to two distinct concepts, the body part and the means of communication) to the English word *language*. In contrast, when an English speaker learning Russian asks for a *chashka* (roughly 'cup'), thinking he would be offered a paper cup, the error here is not only semantic (i.e., inappropriate link) but conceptual as well, since the category *chashka* in Russian does not include paper or plastic containers. In this regard, the use of L2 words for L1 categories correspond to L1 conceptual transfer and the use of L1 words for l2 categories correspond to L2 conceptual transfer. In the view of L2 acquisition, for semantic transfer (the Finnish example), the learner needs to go through a process of inhibition of the link between the word *language* and the concept of the body part, and of relinking both lexical concepts (tongue and language) to the polysemic English word *tongue*.

This conceptual transfer and final restructuring is the third and most important advantage of the MHM concerning the view of L2 acquisition. Pavlenko (2009) explains that while in the RHM, the goal of vocabulary learning is the development of direct links between L2 words and concepts, in the MHM, the main goal of L2 acquisition is conceptual restructuring and development of target-like linguistic categories. This process is gradual, motivated by some internal and external factors and manisfested linguistically. According to Pavlenko and Jarvis (2001), at the beginning of L2 acquisition, more reliance on the familiar conceptual framework results in L1 transfer on L2 use (code-switching, semantic extension and shift, loan translation and calques, morphosyntactic transfer, framing transfer). Then, in the process of internalization of L2 concepts and restructuring of concepts under the influence of L2, L2 influences L1 use because of the need to name new objects and concepts and the need to differentiate similar concepts. When it becomes impossible to maintain two separate conceptual domains, these two converge, resulting in a bidirectional influence, manifested through semantic shifts, semantic extension and narrowing. After this process of convergence, a shift from L1 to L2 occurs especially when reliance on L1 concepts result in

miscommunication, confirmed by semantic shift, prototype shift, category boundary shift and framing transfer. At the last stage of conceptual transfer, L2 completely influences L1 use and a lack of need for particular concepts in one's daily interaction results in attrition of L1 concepts. This kind of conceptual development and change is evident in L2 users, in particular in immigrant communities.

Moreover, conceptual restructuring takes place in implicit memory that learners may not be aware of and that cannot be tapped into on demand (as opposed to explicit knowledge of word definitions, grammar rules and translation equivalents). Pavlenko (2009) points out that although the distinction between implicit and explicit learning is commonly accepted in the field of second language acquisition (Paradis, 1994, 2004), it has not been integrated yet in models of the bilingual lexicon. In this regard, the MHM and its view of L2 acquisition show a dissociation between implicit and explicit knowledge in L2 learners in that "the ability to translate and define language-specific linguistic categories does not automatically lead to the ability to use these words in context" (Pavlenko, 2009, p. 150; see also Pavlenko, 1997, 2003; Pavlenko and Driagina, 2007). The dissociation also exists for partial equivalents such as the Spanish *ser* and *estar*, both translated in English as *to be*. With such examples, the MHM can explain why memorization of definitions and examples (explicit knowledge) is not enough for target-like performance (which has to deal with the implicit knowledge of the concept differences).

2.9 STUDIES ON AGE AND L2 LEXICAL ACQUISITION

Although the issue of age and lexical acquisition has not been the focus of mainstream literature in second language acquisition, compared to studies in phonology and morphosyntax, a small number of studies on L2 lexical acquisition are available. Singleton (1995) and Singleton and Ryan (2004) offer a thorough review of these studies. This section will consist of a synthesis of some of the main ones, with some added new

ones. More importantly, for our interest, we will also review studies specifically dealing with age effects and ultimate lexical attainment.

Although laypeople believe, either based on their own experiences of raising a child with a second language or based on the common folk belief, that younger learners are better at pronunciation and vocabulary in a second language, empirical studies (Snow and Hoefnagel-Höhle, 1978; Swain, 1982; Snow, 1983; Cummins and Swain, 1986; Harley, 1986) have shown that younger learners, in naturalistic settings, are not better at the initial stages of acquisition compared to older learners but that they do catch up as the acquisition progresses (Snow and Hoefnagel-Höhle, 1978), so that in the long-run, they perform better than older learners, or at least, in a more heterogeneous way (either nativelike or similar to the older learner group) (Hyltenstam, 1988/1992; Spadaro, 1998: more on these two studies will be discussed in the section on ultimate lexical acquisition), leading Hyltenstam (1992) to claim the existence of a critical period in lexicon.

In formal instructional settings, however, studies have shown that in the short-run, older learners outperform younger ones (Stankowski Gratton, 1980; Asher and Price, 1967/1982), and that they also learn faster than the younger learners (McLaughlin, Ostershout and Kim, 2004), given that the amount of exposure is held constant. Even in the long-run, younger learners do not seem to catch up with older learners as they do in naturalistic contexts (Brustall et al., 1974; Oller and Nagato, 1974; Griffin, 1993). The most recent studies carried out by Singleton (1995, 1999), for example, analyzed the performance of two groups of university students learning a foreign language who started before age 12 and after age 12. Data, which was collected at three different times, revealed that although the younger learners showed a long-term benefit until the second time of data collection, by the third time, they were outperformed by the late learners group. Harley and Jean (1999) found similar results with early and late immersion students in a French immersion program. The younger group performed better in the short-run in a vocabulary recognition test, but the late group showed a faster and better performance in word analysis skills, such as converting words into cognates or producing words of the same family, in the long-run.

Results of the previously mentioned studies reflect the inconclusive status of younger vs. older learners' acquisition of L2 lexicon.

The same conclusion can be reached regarding studies on age effects and L2 ultimate lexical acquisition. Hellman (2008a) found only six studies dealing with the eventual outcome of L2 lexical acquisition, with four (Hyltenstam, 1988/1992; Kim, 1997; Spadaro, 1998; Lee, 1998, quoted in Long, 2007) frequently cited as support for maturational constraints and two (Bahrick et al., 1994; Marinova-Todd, 2003a) showing evidence contradicting the existence of a critical period for L2 lexical acquisition and confirming the possibility of nativelike L2 lexical attainment by late learners.

2.10 ULTIMATE ATTAINMENT IN L2 LEXICAL ACQUISITION

First, Hyltenstam (1988/1992) is often the most frequently cited study in support of maturational constraints on L2 lexical acquisition. Hyltenstam (1988) compared the lexical proficiency of 17 to 18-year-old monolingual and near-native bilinguals from a Swedish high school, and found significant differences between groups but no consistent differences in overall lexical proficiency. Among the many methodological weaknesses of this study is the fact that the researcher attempted to compare ten variables, on three groups of subjects, with a total of 36 subjects. The subsequent 1992 study reanalyzed the same data by reducing the variables to four (written lexical errors, oral lexical errors, written grammatical errors, and oral grammatical errors). The analysis of these errors, all grouped into one composite variable, showed that the late (AOA greater than 7) bilinguals' error scores did not overlap with the scores of the native speakers, constituting, for the researcher, evidence for maturational constraints. Other methodological issues involve the fact that the role of lexical errors in non-nativelike late learners' attainment is unknown because of the composite variable (lexical errors combined with grammatical erros) and the missing data on the late learner group's errors. Also, the data on LOR was missing and leave us wondering whether the subjects had enough time to reach their ultimate level of attainment in L2 lexicon. Moreover, the

question of whether analysis of errors only is a valid measure of non-nativelike performance is debatable. As Birdsong (2006) points out, minor errors in the L2 are not necessarily deficiencies, but simply may be an artifact of knowing related facts about another language.

Kim (1997) examined the effect of AOA in ultimate lexical attainment by testing 70 Korean-English bilinguals, grouped by age of L2 learning from age 0-2, 3-5, 6-8, 12-14, and after 15. The minimum LOR was 5 years and age at the time of testing was 18-26. The native control group consisted of 10 bilinguals (English-French, English-German, English-Korean, English-Polish). Participants were asked to read word pairs (prime and target) from a computer screen and had to decide whether the target was an actual English word or a non-word (non words differed from actual words by only two letters). Reaction time and accuracy were measured as dependent variables. Results showed that the mean reaction time for lexical decision demonstrated a stretched Z shape with a significant decline in reaction time starting at AOA of 5 with a flattening out of the curve after AOA of 12. The age-related decline in lexical decision was greatest for non-word targets. For the accuracy of lexical decision, the only significant between group differences was observed in the late AOA group (12-14, after 15), and only in the non-word condition. Although the stretched Z shaped-curve was given as support for age effects in lexical acquisition, as Hellman (2008) points it out well, many questions still remain about the relevance and the purpose of the study. Among the most important ones, for example, the prime-target task and the resulting reaction time data that were used in this study are normally used to analyze the organization of the bilingual mental lexicon. What these tasks (non-natural lexical decision tasks) and results (reaction times) can say about ultimate L2 lexical attainment is unclear and not well supported in the literature: "that late-onset bilinguals took longer to perform a lexical search to be able to decide whether a word exists in the target language may or may not have relevance for ultimate lexical attainment" (Hellman, 2008a, p. 34). However, one of the findings from the study was that on the semantically primed targets, late learners were more likely to be nativelike.

Spadaro (1998) investigated the relationship between age of onset of L2 acquisition and ultimate attainment of lexical knowledge in 38 highly-proficient bilinguals of different L1 backgrounds. Subjects were grouped in three by age of onset (0-6, 7-12, 13+) and ultimate attainment of lexical knowledge was operationalized as the total score on a series of lexical tests. Although no significant group differences were found on a word association test, she found significant between group differences on her self-designed tasks, which led her to support the existence of maturational constraints on L2 lexical acquisition starting at age 6. Once again, this study lends itself to numerous methodological issues, such as no clear LOR requirement, no formal measure of L2 near-native proficiency (two supposedly near-native subjects had no score in the native range on any of the subtests), problems in operationalizing age of onset, and finally inconsistent number of subjects in each group. Another limitation on the validity of two of the tests used to measure lexical acquisition has to do with the fact that these two tasks, which were particularly challenging for the non-native speakers, involved knowledge of L2 idioms and phrases that are stored as chunks. For example, subjects were asked to supply a phrase in which a certain word would occur, as in 'beck and call' for the word 'beck', 'gift of the gab' for the word 'gab', 'much of a muchness' for the word 'much', etc. They were also unable to identify the unusual word in certain phrases, as in 'get it off her heart" (instead of 'chest') and 'keep it under your jumper' (instead of 'hat'). Hellman (2008) suggests that this non-nativelike performance may not be due to biological constraints in storing these chunks but to an age-related decline in working and verbal memory (p. 38).

Finally and more interestingly, regarding the possibility of nativelike attainment, the study found at least one late-onset bilingual (L1 Hungarian, L2 English, age of onset of 16, AOA of 25 and LOR of 46 years) who achieved within the native speaker range on every single subtest. Considering Hyltenstam and Abrahamson (2003)'s claim that the existence of at least one individual who began L2 acquisition after the hypothesized critical period and whose performance is indistinguishable from a native speaker would be counter-evidence for the CPH, the fact that the study revealed four subjects whose

acquisition began after age 6 (the hypothesized critical period for lexical acquisition), who scored within the native speaker range on every single subtest and a fifth subject who scored one point short of that native level achievement, is evidence that the CPH is not supported by the findings of the study.

Lee (1998, in Long, 2007) replicated Spadaro (1998)'s study with 45 Korean-English bilinguals with various age of onset and 15 monolingual English speakers. All participants were university students between the ages of 20-35 at the time of testing, with LOR and L1 use differing significantly across groups. The study showed that with LOR partialed out, the only significant correlation between age of onset and lexical test score was the collocation task consisting of filling the blank with one of four given choices, as in 'If you really trust him, you should give him the _____ of the doubt'. As in Spadaro (1998)'s study, the validity of this measure is questionable and the choice of the proficiency requirement of 550 on the paper and pencil version of the Test of English as a Foreign Language (TOEFL), which is considered the minimum acceptable score for entering public universities in the United States, is also debatable when the study was aimed at evaluating the level of ultimate attainment in L2 lexical acquisition by late-onset learners.

Marinova-Todd (2003a) analyzed the performance of 30 high proficient late learners of English on various linguistic aspects, including three lexical measures. The control group was 30 native speakers of English and the late learners, who were from 19 different L1 backgrounds, had a LOR of 5-20 (mean= 11) years, were between 24 and 53 (mean= 34) years old at the time of testing, and their age of first L2 exposure was between 16-31 (mean= 22) years. Assessment of receptive vocabulary size in L2 English was done through the *Peabody Picture Vocabulary Test – Revised* (PPVT-R), and assessment of productive vocabulary was done on two measures (type-token ratio and rate of low-frequency words) of transcripts from an elicited speech task. Although there was a highly significant between-group difference on the PPVT-R standard scores, 57% of the high proficient late L2 learners scored within the range of native speakers on the PPVT-R. Moreover, 87% scored within the native speaker range on the productive

vocabulary measures (TTR and the ratio of low-frequency words measure). Not withstanding the encouraging results of this study, methodological problems can also be raised regarding the validity and reliability of the TTR measure. Hellman (2008) points out, based on Vermeer (2004), that the TTR may not be a good predictor of vocabulary size or lexical richness, considering, for example, the use of closed-class words (articles, prepositions, pronouns), different rhetorical choices and certain verb tenses. As for reliability of the TTR measure, it seems that, because of its mathematical relationship to text length, it is considered not a direct measure of productive vocabulary size. Also, calculating the rate of low-frequency vocabulary seems problematic since there is no reliable frequency data on spoken American English that can serve as standard. Marinova-Todd (2003a) did not discuss the details of her rate of low-frequency word measure.

Bahrick et al. (1994) constitute the strongest argument against the critical period effects in the domain of L2 lexical acquisition. This large scale study which involved 801 Cuban and Mexican late arrival immigrants to the United States, looked at different measures of L2 achievement over 30 years of residence and L1 retention across their lifespan. Participants were grouped into three categories of AOA (10-13, 14-17, 18+), with LOR from 0-2 to 38+ years. The experimental task included a series of tests administered in both their L1 Spanish and L2 English versions. Two lexical measures were involved: a lexical decision task, in which participants had to differentiate between 18 real words and 18 non-words, and a 20-item multiple choice vocabulary test (no detail on the item selection is presented in the study). Results of the lexical measures showed that for the lexical decision task, the monolingual English speakers were outperformed by the Spanish-English bilinguals after age 30, and that for the vocabulary recognition task, the Spanish-English bilinguals caught up with the monolinguals at age 40. The within subjects results also showed that the bilinguals' performance on the L2 lexical tasks continued to improve for 30 years, while their L1 lexical performance remained relatively stable and only declined very late in their lifespan. After 30 years of residence in the U.S., the bilingual's lexical performance in their two languages was near equal.

Independent variables such as years of formal instruction in L2 English and the percentage of L2 use were found to have a significant effect on the lexical scores.

In her study on the ultimate attainment of adult L2 learners in the lexical domain, Hellman (2008b) compared the vocabulary size and depth of word knowledge of 33 highly successful Hungarian learners of English and 60 comparably educated native speakers of English. The goal was to examine whether adult-onset L2 learners reach the native level in their target language vocabulary. The L2 learners began to learn English after age 16 and were immersed in English for at least 10 years (mean 31.15). Results indicated that highly educated and successful adult L2 learners with decades of immersion in the target language do in fact achieve native level vocabulary size and depth of word knowledge in their L2, at the relatively high rate of 76% in this sample. Analyses of independent variables indicated that significant predictors of nativelike L2 lexical attainment were childhood caregivers' education, verbal ability and literacy in the native language, and interest in word learning and daily reading. Her findings suggest that "the most central components of lexical knowledge are not subject to a critical period of acquisition and the lexicon may be the potentially most successful area of adult-onset L2 learning" (Hellman, 2008b, p. 2). Recent neurolinguistic studies support this claim that nativelike L2 attainment in the lexicosematnic domain may be a real possibility, based on the findings that nativelike neural responses and activation pattersn on L2 lexicosemantic tasks are evidenced among highly proficient adult L2 learners (see Hellman 2008b for a list of references, including Wartenburger et al., 2003; Kim et al., 1997; Sanders and Neville, 2003a, b; Hahne and Friederici, 2001; Hahne, 2001; Weber-Fox and Neville, 1996). Their findings suggest that the lexicosemantic domain may be the most promising area of successful L2 acquisition since the mental lexicon may be able to accumulate new information throughout the lifespan, as opposed to the morphosyntactic and phonological domains. Results of the above mentioned behavioral studies (Marinova-Todd, 2003a; Bahrick et al., 1994) concur with the findings of these neurolinguistic studies that suggest the possibility of nativelike L2 attainment in the lexical domain, at least for highly proficient adult L2 learners.

In the next chapter, we look into the acquisition of emotion vocabulary and the expression of emotions in a first and second language by discussing, first, the relationship between emotions, culture, and language.

Chapter 3: Emotions, Culture and Language

This chapter provides an overview of the relationship between emotions, culture, and first and second languages and their users. The first two sections concentrate on defining emotion and clarifying the terminology relating to the concept of emotion. Then, we look at the relationship between emotion and culture, specifically whether emotions are universal or culture-specific, and how the categories of emotions are verbalized and conceptualized similarly or differently in different cultures. We take a socio-constructivist approach as our theoretical framework for conceptualizing emotions. The next two sections concern emotions and language. Based on the previous section, we investigate how talking about emotions in different languages is problematic and introduce to a few linguistic studies of emotions. Finally, the relationship between emotions, L2, and L2 speakers is analyzed in detail, including performance of affect in L2, description of L2 emotion concepts, perception and expression of emotion in L2 and factors affecting emotional experience and expression in L2.

3.1 THE NATURE OF EMOTION

Despite its common use, the term *emotion* is difficult to define and this lack of an accurate and operational definition has undoubtedly been at the source of the debate on the nature and functions of emotions. In a general sense, emotions are feelings caused in response to a certain experience: they are spontaneous human reactions to a situation one is in or to the people one is with. They are usually considered in opposition to thought and reason, thus, as going against the will. Etymologically, the term *emotion* is derived from the Latin, *e* + *movere*, meaning, to migrate or transfer from one place to another. It was also used to refer to states of agitation or perturbation, both physical (such as the weather) and psychological. The modern meaning of the term as it is used today comes from this latter, more metaphorical usage. In the contemporary understanding of the term

emotion, it is often assumed that emotions have a biological foundation and involve psychological, physiological and behavioral changes: "[…] emotions are complex states of the organism involving feelings, behavior, impulses, physiological changes, and efforts at control […]" (Plutchik, 1994, p. 139).

Understanding the term *emotion* at the cognitive level is not easy. Some see it as purely biologically-caused, leaving no room for the role of agenthood or social factors (Ekmans, 1977), and others emphasize the historical and cultural variability of the motional life and vocabularies (Harré and Finlay-Jones, 1986; Stearns and Stearns, 1988; Wierzbicka, 1992). Thus, it involves various psychological, anthropological, philosophical and cultural issues. Russell (1991) even points out that the term *emotion* itself is not universal and that even if the word exists in different cultures and different languages, there is great possibility that the word covers different phenomena (Niedenthal et al., 2004). Wierzbicka (1991, 1992, 1995, 1999) especially criticizes the fact that words such as 'emotion' and 'sensation' are taken for granted as universal human concepts when they are in fact an artifact of the English language. For example, in ordinary German, there is no word for 'emotion'. The word used as the translation equivalent of the English 'emotion', 'gefühl' (from 'fühlen', to feel) makes no distinction between mental and physical feelings. The plural form 'gefühle' is restricted to cognitively based feelings. Contemporary scientific German increasingly uses the word 'emotion', borrowed from English, while in older academic German, 'gemütsbewegung', literally "movement of the mind" was often used in a similar sense (Wierzbicka, 1995). In Polish, too, the noun 'uczucie' corresponds to both 'emotion' and 'feeling', and here also, the plural noun, 'uczucia' only refers to cognitively based feelings. The French word 'émotion' differs in meaning from the English 'emotion' and its range of use is much more narrow. French-English dictionaries would define 'émotion' as designating some specific emotions, such as 'moved', rather than by 'emotion'. The French noun 'émotion' corresponds closely to the adjective 'émouvant', meaning 'moving', 'touching', 'stirring', or 'thrilling', and 'emu', meaning 'affected' (by emotion) or 'moved'. In general, the French 'émotion' is thought of by native speakers as involuntary,

sudden, intense, and typically positive, rather than negative. Thus, 'tristesse' ('sadness') and 'colère' ('anger') are not considered as typical 'émotions' by native speakers, whereas in English, the two constitute one of the prototypical emotions (Wierzbicka, 1995). It is thus important to note that although emotional experiences are the most fundamental of human experiences, the definition of the term *emotion* markedly differs from culture to culture, the human cognition for particular emotional states differs cross-culturally, and even at the linguistic level, labels for particular emotions are language-specific and difficult to compare cross-linguistically.

Even though the meaning of the term emotion may be debatable, the three elements that constitute an emotion are generally thought to be: 1) a subjective sensation (vécu, sentiment, feeling, affect) which allows one to distinguish many kinds of emotion: joy, fear, anger, etc., 2) developing bodily manifestations, 3) observable behavioral reactions (such as gestures, postures, actions) as well as verbal manifestations (Cosnier, Dols and Fernandez, 1986).

3.2 TERMINOLOGY RELATING TO EMOTION

3.2.1 Affect, emotion, and mood

Although in the literature, the terms *affect*, *emotion*, and *mood* are sometimes used interchangeably, for the purposes of this dissertation, I find it necessary to clear out the distinctions between the three. The term *affect* refers to the degree of attraction or aversion that an individual feels toward an event; it is the general feeling of an emotional state and is phylogenetically more primitive, more general than emotion or mood. In linguistics, *affect* is used as the generic term for "linguistically expressed feelings, attitudes, and relational dispositions of all types" (Ochs and Schieffelin, 1989). Thus, I will be referring to the verbal expression of emotion as the 'discourse of affect' or the 'affective speech'. Affect will be referred to as the verbal (conventionalized) display of emotion (Blyth, 1994). The term *emotion* refers to the specific types of feelings that occur in response to particular events. They are the "internal not the bodily, behavioral, or

cognitive states that are primarily focused on affect" (Ortony, Clore and Foss, 1987). Emotions are typically characterized as having an identifiable stimulus event, i.e., an antecedent. Example of emotions are happiness, anger, frustration, and grief. Finally, the term *mood* refers to the relatively lasting and global states of pleasant or unpleasant feelings (Guerrero, Andersen, and Trost, 1998). Moods have no antecedents; they are the more general, non-specific, longer-lasting feeling states that do not need to be about anything in particular but do influence behaviors.

The same distinction between the more specific type of feeling (with an antecedent event) and the more general, lasting feeling can be seen in the French terms *émotion* and *sentiments*. *Emotion* refers to the immediate, strong, primitive, unexpected reaction to a present situation that does not last, whereas *sentiments* are longer lasting states involving cognition, morality, memory and an active role of the person (Leyens et al. 2000, 2001).

3.2.2 Emotions or feelings?

In the literature, *emotions* are used rather than *feelings* because they are objective in both their biological and social basis whereas feelings cannot be studied objectively (Lutz, 1988; White, 1993). Although the word 'emotion' is not unproblematic, as we have seen in the previous section, it combines, in its meaning, the characteristic three components of *feeling, thinking*, and the *body*. For example, one can talk about a "feeling of hunger" or a "feeling of heartburn", but not about an "emotion of hunger" or "emotion of heartburn", because the feelings in question are not thought-related. One can also talk about a "feeling of loneliness" or a "feeling of alienation", but not about an "emotion of loneliness" or an "emotion of alienation" because even though they are related to thought, they do not imply any bodily events (such as rising blood pressure or tears, etc.) (Wierzbicka, 1999). [1]

[1] In this dissertation however, the terms *emotions* and *feelings* may be used interchangeably since in a general sense of the term emotion, feeling is included as a characteristic component.

3.3 EMOTION AND CULTURE

3.3.1 Are emotions universal or culture-specific?

For the past three decades, research on the relationship between emotions and culture has focused mainly on the issue of whether emotions are universal or culture specific. In the sixties, the pioneering work of Ekman (1969, 1973), in the field of psychology, investigated the universality of facial expressions in order to test Darwin's idea about the universality of emotion expressions. His systematic cross-cultural studies on facial expressions led him to justify that emotion expressions were indeed universal. This view, although not universally accepted, dominated the field, until the seventies, when anthropologists and ethnographers such as Briggs (1970), Levy (1973), and Rosaldo (1980), found compelling evidence for the cultural variation of emotions. They respectively observed that the Inuit did not experience nor display anger because it was thought to be dangerous, that for the Ilongot, the *liget*, considered as the central emotion, was associated with a variety of sensations as enthusiasm, agitation, violence, confusion and that to overcome those strong feelings, they had to go through a ritual of killing a man from another group, and finally that the Tahitians who lack words and scripts for sadness, refer to non-specific expressions as "feeling troubled" or "feeling tired" to describe such feelings that are somewhat interpreted not as emotion, but as illness or a manipulation of a spirit. For Porter and Samovar (1998), emotions, identified by different language labels, have different physiological symptoms, expressive behavior, motivation and subjective feelings. Especially in the frequency of emotional display, the cultural expectations with respect to the appropriateness and the particular intensities of emotions, and the methods of managing them vary (Scherer, Wallbott, Matsumoto, and Kudoh, 1988; Porter and Samovar, 1998).

Generally, the source of cultural variation is based on the different cultural meaning attached to emotion. For universalists, cultural meaning is not essential to an emotion system. It may affect the interpretation of emotions, but is considered to have no influence on the emotional reaction. Emotions are seen as part of the physiological

system. On the other hand, for cultural relativists, cultural meaning is important in both the experience and expression of emotions. Emotions are seen as occurring within the realm of human interaction and thus constituted in social relationships. As Manstead and Fischer (2002) summarize simply, "[…] emotions are interpreted, experienced, and expressed differently depending on the social and cultural context in which they occur, they clearly cannot be universal" (p. 3). During the eighties and in the past decade, continuing research on the importance of universal and socio-cultural factors in the perception and expression of emotions generally concluded that there was evidence of both emotion-specific patterns across cultures and cultural-specific patterns of emotions and that an extreme position on either the universalists' or the cultural relativists' side was untenable (Boucher and Brandt, 1981; Brandt and Boucher, 1985; Watson-Gegeo and White, 1990; Lutz and Abu-Lughod, 1990; Markus and Kitayama, 1991; Russell, 1991, 1994; Mesquita and Frijda, 1992; Scherer and Wallbott, 1994; Cohen and Nisbett, 1994, Parish, 1994; Besnier, 1995; Wierzbicka, 1995; Leavitt, 1996; 1997; Kitayama and Markus, 1994; Cohen, Nisbett, Bowdle and Schwarz, 1996; Matsumoto, 1996). There is an emerging consensus now that "it is not a question of *whether* all humans are like or unlike all other humans. Rather, it is –and this is far more complex- a question of *how* humans are alike and *how* they differ" (Lofland, 1985, p. 172; italics are from the original author). Manstead and Fischer (2002) summarize this point well when they posit that "the question is not so much *whether or not* there is cultural variation, but rather *to what extent*, and *at what level of analysis*, such cultural variation exists" (p. 4; italics are from the original authors).

In this respect, Mesquita and Frijda (1992) who reviewed the psychological and anthropological evidence on emotions across cultures identified both cross-cultural similarities as well as differences in each phase of the emotion process (i.e., the antecedent events eliciting an emotion, the categorization of the event type, the appraisal, the physiological reaction patterns, the action readiness or action tendencies, the emotional behavior and the regulation of emotion). Aspects of emotion that appear to be universal across cultures include reaction modes such as action readiness, facial

expressions, voice intonations and physiological responses, as well as certain event types that universally arouse emotions such as loss of a dear person, rejection from a social group and rivalry threats. The appraisal dimension also appears to be similar across cultures in distinguishing the different types of emotions. On the other hand, aspects of emotions that demonstrate cultural differences have to do, most importantly, with the regulation processes: display rules and feeling rules vary across cultures, particular kinds of events that arouse emotions and particular appraisals may be acceptable or suppressed depending on the regulation of a particular culture and so on (Briggs, 1970; Gordon, 1981; Hochschild, 1983; P. N. Stearns and Stearns, 1985; C. Z. Stearns and Stearns, 1986). Other sources of cross-cultural emotion differences are cultural differences in event types, leading to differences in event coding and emotional behaviors and patterns of expressive behaviors. More generally, Mesquita and Frijda's analysis (1992) showed that differences in one phase do not necessarily imply differences in other phases, and conversely, that similarities in one respect do not guarantee similarities in other respects, clearly stating the point that "global statements about cross-cultural universality of emotion, or about their cultural determination, are inappropriate" (p. 198).

3.3.2 Categories of emotions

Research indicates that there are at least six basic or primary emotions that are considered to be physiologically based, innate, found in all human beings, and universally understood across cultures. The main rationale for considering certain emotions as primary is that they are universally found in all cultures (Kemper, 1987; Ortony and Turner, 1990). The number of these basic emotions varies from three to eleven but there is a general consensus on at least five to nine of them, including anger, fear, surprise, sadness, disgust and happiness (Ekman and Friesen, 1975, 1986; Plutchik, 1994; Izard, 1997). By basic emotions, it is generally believed that they are particular emotion categories that are judged to be more "prototypical" (i.e., a better example) than another (Kovecses, 2000). For example, anger is more basic than hope or pride. Whether

the communication of these basic emotions is universal is still debatable. However, the categorization of these basic emotions seems to be empirically justified. In their cross-cultural study, Frijda, Markan, Sato and Wiers (1995) found five general and possibly universal categories of emotions in 11 languages. These basic emotion categories include happiness, sadness, anger, fear, and love. There are also secondary or "social emotions" such as pride, shame, guilt, sympathy, embarrassment, jealousy, envy, gratitude, admiration, and indignation, for example, that are more culture-specific. They arise through participation in the socio-cultural environment and tend to vary based on age, gender, and culture (Labouvie-Vief, Hakim-Larson, Devoe, and Schoeberlein, 1989).

On the other hand, for cultural relativists or comparativists, the idea of basic emotions is hardly tenable (Rosaldo, 1980; Lutz, 1988; White, 1992; works by Wierzbicka). Major evidence comes from the varying number of vocabularies of emotion in different languages. People interpret their emotions based on the lexical grid provided by their native language, thus, whether or not two feelings are interpreted as two different instances of the same emotion, or as two different emotions largely depends on the language of the emotions considered.

3.3.3 Emotions as social constructions: the socio-constructivist approach

Culture is a "shared, learned behavior which is transmitted from one generation to another for purposes of promoting individual and social survival, adaptation and growth and development. [It] has both external (e.g., artifacts, roles, institutions) and internal representations (e.g., values, attitudes, beliefs, cognitive/affective/sensory styles, consciousness patterns and epistemologies)" (Marsella, 1994, pp. 166-167). Thus, culture influences the expression and recognition of emotions since these "social feelings" are learned through communication with others, within a cultural context (Porter and Samovar, 1998, p. 453)

According to Averill (1980), emotions are "social constructions": they are "responses that have been institutionalized by society as a means of resolving conflicts

which exist within the social system" (p.39). That is, they are created, organized and produced, i.e., "constructed" according to the rules of society. He proposes "to situate the emotions within the hierarchy of behavioral systems" (1982, p. 4), rejecting definitions of emotion based on patterns of physiological arousal, neurological circuits, feelings or cognitive appraisals (1982, p. 4). Emotions are part of the larger system of behavior which can be analyzed in relation to social systems, psychological systems and biological systems (1982, p. 19). Thus, he defines emotions at the social level of analysis as "socially constituted syndromes (transitory social roles) which include an individual's appraisal of the situation and which are interpreted as passions rather as actions" (p. 1982, p. 6). Emotions are distinct from other transitory roles in their cognitive appraisals involved: "each emotion is based on a particular set of appraisals or evaluative judgments" (1982, p. 19). Emotions are also distinct from other social roles in that they are considered as passions rather than actions: "an emotion is not just the sum of its parts" (1982, p. 19), so that what constitutes an emotion needs to be carefully evaluated. He notes "the attribution of emotion also depends on the nature of the appraised object and on the meaning of the emotional role (i.e. how the emotional role relates to broader systems of behavior, primarily at the social level of analysis" (1982, p. 19).

Fussell (2002) also claims that "emotions are not regarded primarily as internal-psychological phenomena, but as socially prescribed and formed entities, which are constituted in accordance with social rules of emotionality and which are manifested, interpreted, and processed together communicatively in the interaction of definite purposes by the persons involved" (p. 79). In other words, there are rules of manifesting emotions that are socially distinct; the values and priorities of society delimit and dictate what to feel, what to say and what to do to the members of that society and culture. So then, the question is not so much on the meaning of a particular emotion, but on identifying the different social and cultural contexts in which that particular emotion appear: "instead of asking the question 'What is anger?', we would do well to begin by asking 'How is the word *anger*, and other expressions that cluster around it, actually used

in this or that cultural milieu and type of episode? (Harré, 1986, p. 5; italics from the original author).

3.3.4 Verbalizing emotions

Emotion terms and expressive language, i.e., what can be said, displayed, and shared among the members of the speech communities, the appropriate ways in which they can be expressed, linguistically and non-linguistically, are culture-specific, bound and conventionalized by the rules of social pragmatics (Pavlenko, 2005; Porter and Samovar, 1998). Myers (1979) even points out that "the determination of when one ought to be angry, when sad, when sorry, when lonely, and how to act, is largely a cultural matter" (p. 349).

In verbalizing emotions, Cosnier, Dols, and Fernandez (1986) conducted a study based on written questionnaires, involving subjects from Europe (Belgium, France, Great Britain, Italy, Spain, Switzerland, West Germany) and Israel. The data concerning the use of speech in the production of emotions showed two emerging groups: those where the percentage of verbal expression was important (i.e., the "talkative" emotions), joy and anger, and those where speech was infrequent in the production of emotions (i.e., the "silent" emotions), fear and sadness. Comparing across the countries, subjects from Spain and Israel clearly tended to be more silent during emotional situations, compared to those from Great Britain and West Germany, who tended toward the verbal expression of emotions. Verbalization is linked to the presence of others in the antecedent situation, but also, results showed that subjects spoke significantly more in the presence of relatives or friends than in the presence of unfamiliar others, except in the case of anger, where familiarity was irrelevant. Another interesting aspect of the comparison of verbalization across countries/cultures and emotions is the degree to which subjects tried to control what they said. Across emotions, there were highly significant differences, with joy being the least controlled emotion and anger being the most controlled emotion, but also the most difficult to control and the most "talkative" one as well. Fear and sadness were in an

intermediate position in the control of verbalization. The degree of control was also highly dependent on the nature of the social situation: there was a significant increase in the control of verbalization in proportion to the number of persons involved in the situation, and control increased significantly with the familiarity of others present, especially in sadness and anger. Cross-culturally, subjects in France, Great Britain, Italy, Spain and Switzerland had a lower control of verbalization during emotions than those in Belgium, West Germany and Israel.

3.3.5 Conceptualizing emotions

Going beyond the universalism-relativism debate, another way of approaching the issue of the relation between culture and emotion is by looking at the ways different cultures conceptualize the self and the role of emotion language with regards to other members of society. Whereas some cultures emphasize the importance of thinking, feeling and acting independently of others, other cultures emphasize conformity and harmony in thinking, feeling and action. Cultures of the first type are referred to as individualistic (Hofstede, 1991; Schwartz, 1992), with examples including the cultures of Canada, the United States and Western Europe. In these cultures, a person has a negotiable relationship with others and because their personal objectives predominate over those of the group, they may leave the other group when the group's demand increases. Cultures of the second type are referred to as collectivistic, and they include many cultures of Africa, Asia, and Latin America. These cultures are characterized by a stable relationship between a person and the others and a subordination and adjustment of personal objectives to those of the collectivity, without abandoning the group (Smith and Bond, 1993).

The individualistic-collectivistic distinction is represented in a continuum along which cultures are arranged and it provides an important basis for interpreting differences in emotional experience across cultures (Smith, 1995).

Markus and Kitayama (1991) extended the concepts of individualism and collectivism to the thoughts and emotions of the individual person and analyzed the consequences of different types of self-concepts for the occurrence, experience, and expression of emotion. They argued that individualistic cultures encourage an independent self-concept, distance and separateness from others, emotional self-control, auto-sufficiency, open confrontation, and work and achievement is favored over expressiveness and sociability. Collectivistic cultures, on the other hand, encourage an inter-dependent self-concept, emphasizing one's connections to others, promotes hiding conflict, maintaining good interpersonal relationships, comprehension and affective empathy and the expression of positive affect. Marian and Kaushanskaya (2004) showed that the speech of bicultural Russian-English bilinguals retrieving autobiographical memories followed these concepts such that when speaking a language associated with a more individualistic culture (English), bilinguals produce more individualistic narratives, whereas when speaking a language associated with a more collectivist culture (Russian), bilinguals produced more collectivist narratives, regardless of language of encoding or main agent in the narrative. For example, bilinguals used more personal pronouns when narrating life stories in English than in Russian, while they used more group pronouns when narrating autobiographical events in Russian than in English. Bilinguals produced more self-oriented narratives when the language at retrieval was English than when it was Russian. Also, the main agent was more self-oriented in English narratives than in Russian narratives.

Not only the question of whether it is at all important to express emotions in everyday interaction can be debatable from one culture to another, but also, as discussed above, sources of emotions, i.e., the antecedent events of certain emotions, will vary from culture to culture. Although research shows evidence of universal antecedents causing the same emotional experiences in widely different cultures (Mesquita and Frijda, 1992; Boucher and Brandt, 1981; Boucher and Brandt, 1985), evidence of cultural diversity in antecedent events shows that the level of sensitivity to certain events might differ cross-

culturally, i.e., members of different cultures might see the same stimuli differently (for example, the Japanese women's self-blame in response to their husband's infidelity) and even people of the same culture might respond differently to the same antecedent events. Some socially and biologically important events do not necessarily have the same emotional meaning everywhere and always: meaning is shaped by specific circumstances and by culture (for example, death is a universal concept but the experience of death varies, as well as the experience of grief) (Planalp, 1999). The circumstances that produce emotion, i.e., the sources of emotion are numerous, variable and dependent on the individual and his or her culture and their social norms. For example, social relationships are the most common sources of sadness, anger, joy and fear in Europeans, Japanese and Americans whereas for the Ifaluk society, not sharing one's food would cause a feeling of insult. Moreover, in the Western culture, emotions, as inner states, are generally considered to be generated by external events, by "natural" causes, whereas in other cultures, a combination of internal and external causes is at the heart of emotions (Heelas, 1996). Other societies that believe in gods also commonly believe in "supernatural" causation of certain emotions (Heelas, 1996): fear, for example, can be caused in humans when a deity gets angry at human transgression and threatens punishment. Other external agencies include other human beings, especially those with witchcraft powers, who work in "magical" ways whereas in opposite cultures where emotions are thought to be caused internally, internal organs are believed to emit emotions (Heelas, 1996).

Based on this distinction, the representation and experience of emotions (at all levels, from the antecedent events, to the rules of expression, to the kinds of emotion) have been shown to vary, congruent with their respective cultural contexts. With regards to emotional antecedents and the kind of emotions experienced, when asked to describe situations in which they experienced anger, subjects from individualistic cultures (the U.S. or Western Europe, for example) described events referring to themselves while those from collectivistic cultures (China or Japan, for example) referred more to events relating to other people (Markus and Kitayama, 1991; Smith and Bond, 1993). For

example, in individualistic cultures, emotions such as pride and happiness are associated with the Ego, the satisfactory performance of a task or the fulfillment of a necessity (i.e., doing better in an exam than other people), and anger and sadness might be associated with a restriction imposed on the self by others or the loss of personal objectives (i.e., when a person prevents one from achieving a goal or the impossibility of achieving a goal, based on personal reasons). Independent people more frequently experience and express self-focused or "socially disengaged emotions" (e.g., pride, anger, and happiness which tend to set the individual apart from others) as an expression of their internal states whereas interdependent people experience and express more other-focused or "socially engaged emotions" which direct attention to other people, strengthen social relationships, defend and affirm the collective attributes (e.g., shame, contentment, the Japanese concepts of *amae*, a hopeful expectation of another person's indulgence, and *tanomi*, feeling of relying on someone) (Markus and Kitayama, 1991). Data from Mesquita and Karasawa' study (2002) provide a good illustration of the differences in the salience of independent vs interdependent concerns across cultural contexts. Following are the responses of American and Japanese subjects when asked to relate an unpleasant situation.

> American female:
> I was late for a sorority function. My friends came to pick me up and I was not even close to being ready. I had to throw on some outfit and finish my make-up as I walked out the door. It was not a good start of the night [for me].
>
> Japanese female (living in the United States):
> I was eating dinner with my Japanese friend and her roommate in the cafeteria. I sat down at the table last. While I was still eating, everyone else was waiting for me. So I felt bad for them. I could have told them not to worry about me and go ahead and leave, but I could not even say that. (p. 129)

As to the intensity of the internal vs. external expression of emotion, the same parallelism applies. The emotional experience is perceived more strongly in individualistic cultures because it is closely related to internal physical changes (for example, the American

subjects mentioned a higher number of internal physical reactions than the Japanese subjects). It is also displayed more openly through motor reactions (for example, the American subjects showed more body movements and gestures than the Europeans, and both showed more than the Japanese). Subjects in collectivistic cultures used less of the openly verbal reactions than their counter subjects (for example, they mentioned a lower number of verbal reactions to anger and fear than did the American and European subjects).

This conceptualization of the self and the representation of emotions can predict the nature of a person's emotions, which in turn, is expressed linguistically in different ways. In individualistic cultures**,** emotions are conceptualized as individual phenomena, arising in the individual, whereas in collectivistic cultures, they are seen as relational phenomena, embedded in social situations, involving other people rather the self. In these cultures, emotion words function as statements about the relationship between a person and an event (and the people involved in the event) rather than statements of internal states (Lutz, 1986; Pavlenko, 2005). An interesting study by Semin, Görts, Nandram and Semin-Goossens (2002) investigated the relative prominence of different grammatical categories (e.g., verbs, adjectives, and nouns) in order to test the hypothesis that in cultures where group goals and relationships prevail, concrete language use (e.g., interpersonal verbs) will be more accessible than abstract language (e.g., adjectives, nouns) because concrete language marks relationships, whereas in cultures where individual goals prevail, abstract language will be more accessible. The *linguistic category model* (Semin and Fiedler, 1988, 1991) served as a framework to examine the type of linguistic devices used to represent particular events. In this model, four different categories of interpersonal terms are distinguished. *Descriptive-action-verbs* are the most concrete terms and convey a description of a single, observable event and preserve the perceptual features of the event (e.g., "A punches B"). *Interpretive-action-verbs* describe specific observable events, but they are more abstract in that they refer to a general class of behaviors and do not preserve the perceptual features of an action (e.g., "A hurts B"). *State-verbs* describe an unobservable emotional state, and not a specific event (e.g., "A

hates B") and finally, *adjectives* (e.g., "A is aggressive") constitute the last and most abstract category. Based on these categories, the authors found that in the Hindustani-Surinamese culture where relationships and interdependence are privileged, there was a higher proportion of emotion verbs functioning as relationship markers, whereas in Dutch, the proportion of emotion nouns, functioning as self markers, was higher, consistent with the individualistic view of emotions as inner states (Semin et al., 2002). Because of the different social contexts and social relationships in American and Japanese societies, in English, emotions are expressed directly, whereas in Japanese, they are expressed in subtle and indirect ways, often non-verbally (Pavlenko, 2005). Moreover, even within a shared cultural and linguistic background, intergroup differences in the affective styles and their perception are evident. For example, African-Americans are more emotionally engaged, dynamic, demonstrative than European-Americans, who tend to value emotional self-restraint; British English speakers commonly use evidential adverbs (such as 'absolutely', 'obviously', 'of course') to express affect and to signal solidarity and involvement, while for American listeners, these uses may sound presumptuous.

In all cultures, people conceive of emotions as being experienced in many different ways, especially in relation to human will (Wierzbicka, 1999). Moreover, attitudes to emotions and especially the cultural assumptions concerning the intentionality and control of emotions, which vary cross-culturally, are encoded in grammar. As Wierzbicka (1999) states it: "It seems likely that all languages draw some grammatical distinctions in the area of emotions, thus reflecting different perspectives on emotions, available to speakers within one culture. Roughly speaking, different constructions may present an emotion as "involuntary", or as "uncontrollable", or as "overwhelming" and "irresistible", or as "active" and in some sense "voluntary", and so on" (p. 58). In the modern Anglo culture which views emotions as unintended, as something that should be controlled, i.e., as passive states, caused by external and/or past causes, emotions are more commonly expressed by copular constructions with adjectives and pseudo-particles

such as ‘to be worried, to be sad, to be disgusted’ and less through intransitive verbs as ‘to rejoice, to worry’ (Wierzbicka, 1992). The Russian culture, on the other hand, views emotions as inner activities in which one engages more or less voluntarily (i.e., as actions), implying a more active attitude on the part of the experiencer. Thus, the Russian emotive discourse will find more verbs such as *radovatsia* ‘to rejoice, to be actively happy, joyful’ (Lutz, 1990; Wierzbicka, 1992, 1994). For example, the Russian emotion of ‘sadness’ can be conceptualized (through grammar) in three different ways:

A. On byl grusten
He-Nom was-Masc. sad-Adj-Masc.
‘he was sad’

B. Emu bylo grustno
To-him (Dat) it-was (Neuter) sad-Adverb
‘he experienced sadness, he couldn’t do anything about it’

C. On grustil
He-Nom sad-Verb-Masc.
‘he was sad’ (Wierzbicka, 1995, p. 41).

Though pattern A corresponds to the English adjectival pattern, patterns B and C have no counterparts in English. The closest parallel for pattern C in English would be expressions such as “he rejoiced” or “he grieved”, considering the clear differences between passively “feeling happy” and actively “rejoicing”, and passively “feeling sorrow” and actively “grieving”. However, pattern C in English, “he grieved”, is used only marginally and is restricted to very few verbs, whereas in Russian, it is fully productive in the discourse of emotions. Pavlenko’s study (2002) supports Wierzbicka’s claims showing that American narrators favored adjectives while Russian narrators favored verbs, in particular imperfective and reflexive emotions verbs, stressing the processual aspect of the experience.

This relationship between emotion and language is examined in more detail in the next section.

3.4 EMOTIONS AND LANGUAGE

How important is emotion in everyday interaction? White (1993) suggests that the most common topics of talk among individuals refer to their own or other people's emotions. However, emotion talk is not common in all cultures to the same degree. The Chewong (Malaysia) report little emotion in interaction, whereas in Indonesia, emotional scenes are relatively rare in daily life and usually kept private (Heelas, 1996). Wierzbicka (1994) notes that in American conversations, displays of emotion are unusual whereas in Russian conversations, emotions are normal and their absence reveals a dead soul. Similarly, in French and German cultures, "the idea that *les sentiments* or *Gefühle* should be viewed as a departure from the normal state of composure would strike most people as bizarre" (Wierzbicka, 1994, p. 151).

An array of verbal strategies is available to convey emotions and attitudes about certain situations. On the verbal side, for example, in English, there is an abundance of both literal (e.g., angry, furious, sad, surprised) and figurative (e.g., boiling with anger, being swept off one's feet, being madly in love, flipping one's lid, on Cloud 9) expressions that can be used to describe numerous emotional states. Moreover, a wide range of non-verbal and paralinguistic mechanisms can also be used to express emotions, including facial expressions, i.e., smiles, wide eyes (Ekman and Friesen, 1969, 1975, 1986; Ekman, 1973, 1980); gestures, i.e., pounding fists, hugs, scratching head; physiological changes, i.e., sweat, tears, blush, chills, fast breaths; vocal cues, i.e., yells, murmurs, trembling voice, measured by loudness, pitch and time, and the like (Planalp, 1999). However, those channels in and of themselves are insufficient in expressing the full range of the human emotional experiences and most individuals disclose emotional experiences to others by verbal means (Rimé, Mesquita, Phillipot, and Boca, 1991).

The linguistic expressions used in connection to a particular emotion are numerous. In the case of anger, there are at least 150 expressions available to speakers of English (Lackoff and Kövecses, 1987), and in the case of love, the number is roughly at 300 (Kövecses, 1988). Based on his study of the English emotion lexicon, Kövecses (1986, 1988, 1990)

suggests that the number of available "language games" possible for each basic emotion is estimated to be fairly high, in most cases, over a hundred.

3.4.1 Talking about emotions in different languages is problematic

3.4.1.1 The problem of lexical translation

The "emotional universe of a culture" (Wierzbicka, 1999, p. 34) includes the emotion lexicon, grammar, as well as phraseology, discourse structure, intonation, interjections, swear words, forms of address and other non-verbal cues, such as gestures, culture-specific facial expressions and bodily postures and gestures. The vocabulary of emotions differs across languages, meaning that "the set of concepts by means of which the speakers of any given language make sense of their own and other peoples' feelings is specific to a particular language." (Wierzbicka, 2004, p. 94). Different languages encode different ways of thinking, different ways of dealing with people, as well as different ways of feeling. In other words, they associate with different "cultural scripts" (Goddard, 2002). In this regard, it is important to note that English terms of emotion constitute a distinct taxonomy, not an objective, culture-free analytical framework. We cannot assume, for example, that English words such as *disgust, fear,* or *shame* are clues to universal human concepts. Polish does not have a word corresponding exactly to the English word *disgust*. Gidjingali, an Australian aboriginal language, does not lexically distinguish *fear* from *shame*. Neither English nor Spanish nor Malay has a word corresponding exactly to the German word *angst*.

However, claiming that emotions and emotion categories are not universal should not refute the fact that there are some universally and commonly felt emotion qualities in the universe of human emotions. Moreover, the absence of a word in one language should not imply the absence of the corresponding concept. This takes us to the issue of translatability of concepts. English words such as *chase* or *persuade* are highly language-specific and it is questionable whether they have exact semantic equivalents in any, or

every other language. In contrast, the English word *say* is assumed to have its semantic equivalent in hundreds of other languages. Sapir (1949) noted that "every language provides its own set of lexicalized concepts, every language suggests its own interpretation of the world- consequently, every language is indeed a different 'guide to reality'" (p. 162). Considering that most of the lexicon of any language is, to a greater degree, language-specific, and that what *can* be said might be different from one language-culture system to another, there seems to be limits to translating emotion concepts due to the incompatibility of the particular languages. Stanislaw Baranczak (1990), a Polish émigré writer and professor of Polish literature at Harvard University contrasts the concept of *happiness* as such:

> Take the word 'happy', perhaps one of the most frequently used words in Basic American. …The Polish word for 'happy' (and I believe this also holds for other Slavic languages) has a much more restricted meaning; it is generally reserved for rare states of profound bliss, or total satisfaction with serious things such as love, family, the meaning of life… Accordingly, it is not used as often as 'happy' is in American common parlance. The questions one hears at…parties – 'is everybody happy?' – if translated literally into Polish, would seem to come from a metaphysical treatise or a political utopia rather than from social chitchat (1990, p. 13.)

Based on the close connection between culture and language, evidence of culturally-based linguistic diversity in emotional communication is clear (Porter and Samovar, 1998). At the lexical level, translation of emotion terms is never exact, especially when the term being translated is forced into a framework that does not exactly fit. It can only provide the closest equivalent word or phrase from one language to another. Even further, some words describing emotions in some languages have no translation equivalents in other languages: the German word *schadenfreude*, referring to pleasure derived from another's displeasure, has no direct English translation. The Japanese word *itoshii*, which refers to a feeling associated with observing someone praise-worthy overcoming an obstacle, has no English translation. In the same way, Arabic has no equivalent for the English word *frustration*. Another difficulty has to do with the categorization of different

levels of emotions. English distinguishes between the words *terror*, *horror*, *dread*, *apprehension* and *timidity* as degrees of *fear*, whereas the Gidjingali language uses a single word *gurakadj*. The American English distinction between *shame* and *embarrassment* is not made by the Japanese, Tahitians, Ifalukians or Indonesians (Porter and Samovar, 1998). The English term *emotion* itself lacks exact semantic equivalents in many languages (even European languages like German and Russian).

3.4.1.2 The problem of objectivity

Related to the limitations of translating emotion terms, ethnocentrism constitutes a bigger problem when talking about emotions. Scholars mostly adopt a Western view (specifically American) of emotion and English terms are typically used as *the* basic expressions and the criteria for comparison (Wierzbicka, 1995). Foreign views of emotion are understood through the Anglo-American cultural lenses and point of view, thus running the risk of oversimplifying the meaning of these terms. In Heelas's words (1996), "although such terms [basic emotion words] involve distinctions which allow translation in terms of our emotion concepts, they also derive their meaning by including states of affairs which do not suit our concepts; which do not suit our understanding of what counts as being afraid, being angry and the like." (p. 175).

3.4.1.3 The problem of cultural salience

Salience refers to "the relative importance and visibility of some emotions over others in a given emotional style" (Middleton, 1989, p. 197). Cultures differ in the degree to which they encourage or suppress the display of emotions in general, but also, some emotions are relatively more frequent than others. In a study of free lists of emotion terms by Chinese, Japanese, and English monolingual speakers, Moore, Romney, Hsia, and Rusch (1999) found that although *happy* and *sad* were frequent in all three cultures,

anger/excitement/sadness were the most salient emotions for the Chinese, anger/happiness/sadness the most salient for the English speakers, and anguish/loneliness/sadness the most salient for the Japanese.

3.4.2 Linguistic studies of emotions

Although the topic of emotion and their relation to language and language use has not been central in linguistic studies of the past (Foolen, 1997), the language-emotion relation has been studied from various perspectives in order to describe and analyze ways in which affect and emotions are indexed through various linguistic forms and functions. At the lexical level, emotions words (upset, irritated, overjoyed) and emotion-laden words with strong affective connotations (invasion, molestation, rape), forms of address (mommy, daddy), honorifics, emotive interjections, exclamations, hedges (I'm sort of…like…not sure what this is all about), sound clusters (uh-oh, yuk, brr…), curses and taboo words (go to hell!), intensifiers (this is bloody unbelievable!), and figurative language (she's jumping for joy; he is crushed) have been investigated (Pavlenko, 2005). At the semantic level, cross-linguistic differences in emotion concepts provide information on culture-specific uses of particular terms (Spanish *mamita*, 'little mother'), language-specific terms referring to particular emotions (Ilongot *liget*, Japanese *amae*), and language- and culture-specific metaphors (English 'I'm feeling down today', Chewong 'my liver was tiny' meaning 'I was very ashamed) (Heelas, 1986; Kovecses, 2000; Wierzbicka, 1991).

At the morphosyntactic level, affective meanings are signaled by particular morphemes or syntactic configurations. Different languages may offer different morphosyntactic resources to perform affect: emotion verbs, choice of pronouns (*tu/vous* in French), emphatic particles (Russian diminutive suffix *–chik*), relative clauses and tag questions conveying involvement (…shall we?, …aren't you?), word order, tense, aspect, right-left dislocation, etc…) (Nissenbaum, 1985; Ochs & Schieffelin, 1989; Besnier, 1990; Wierzbicka, 1991; Radford, 1989; Maynard, 1995). Other unique morphosyntactic

means of affective expression include for example, the use of different forms of first-person singular pronouns to mark self-deprecation and elicit sympathy in Japanese, Samoan, and Tongan (Besnier, 1990; Ochs & Schiffelin, 1989). A favorite Yiddish device for expressing disparagement, repeating the word and substituting 'shm' for the initial consonant, has been incorporated in English (cancer-shmancer, money-shmoney).

Cross-linguistic differences are also evident in the preferred means of emotional expression. As we saw previously, English speakers favor adjectives, which construct emotions as states while Russian speakers prefer verbs, which construct emotions as actions, processes, and interpersonal relationships (Pavlenko, 2002). Samoan, Yiddish, and Kaluli construct emotions as external events by encoding the experiencer as locative modifier of the emotion-denoting verb, rather than its grammatical subject (Besnier, 1990)

Affect can also be expressed directly or indirectly through pragmatic and stylistic devices such as hyperboles, repetitions, metaphors, diminutives, intensifiers (Besnier, 1990; Ochs and Schieffelin, 1989). Speech acts are also used for direct expression of emotions (congratulations, complaints, apologies, bragging) often with social and psychological illocutionary functions. The salience of particular speech acts, their frequency and the means by which they are performed vary across languages and L2 learners unfamiliar with such these practices can easily misinterpret these exchanges.

Narratives of personal stories about events that elicited fear, despair, happiness and so forth have enabled researchers to look at the variation in structure, elaboration, sentence length, use of reported speech, amount of description of the speakers' emotions (Rintell, 1989, 1990; Schutz & Baumeister, 1999; Pavlenko, 2005). Cross-linguistic differences arise in conventionalized narrative structure, amount of evaluation offered, directness of emotion description and framing of particular events (McCabe & Bliss, 2003; Riessman, 1987; Tannen, 1982). Telling a story adequately in a different language is complex, especially if the speaker's aim is to describe their emotion or elicit certain emotions from the interlocutors. L2 learners need to be familiar with the

conventionalized narrative structures and affective devices in order to effectively reach that goal. More on the discourse of L2 speakers is presented in the next section.

Finally, studies of conversation analysis offer insights into the communicative strategies used to signal affect (reported speech, hedges, reduplication, conversation management strategies, management of sociolinguistic registers) and the rules that regulate the occurrence of expressive emotional behavior in interaction. For example, Wierzbicka (1991)'s review of strategies of self-assertion across languages show that Italian, Hebrew, German, Greek, and African-American English speakers highly value argumentation and open conflict in private and public talk and use a variety of strategies to assert themselves and negotiate conflict. Even within the same speech community, the same strategies may be used for different affective purposes (tag questions may signal intimacy and solidarity in some contexts but challenge and resistance in others, for example). In native/non-native intercultural communication, negotiation of meaning is even more difficult: what is polite and appropriate for some cultures and speakers may sound rude and offensive in others. Tannen (1989) points out that shared cultural backgrounds lead to shared assumptions about conversational strategies such as pause length or use of overlap while conversations between speakers of different languages who are not aware of these assumptions may sound "out of sync" (Pavlenko, 2005).

Given all these cross-cultural and cross-linguistic differences in the strategies used to perform affect, L2 learners are faced with the difficult task of appropriately managing and using these devices for successful communication between them and native speakers of the target language or with other non-native speakers. Depending on language proficiency, degree of socialization and various internal and external factors, language transfer is commonly expected in L2 pronunciation and morpho-syntax. In the next section, I will show that language transfer is possible in pragmatics also, especially in the expression of emotion by L2 users.

3.5 EMOTIONS, L2, AND L2 SPEAKERS

3.5.1 Emotions and L2: L2A and affective variables, and L2 emotionality

The relationship between emotions and a second language can be seen in different ways. Pavelenko (2002) notes that for many years, research on languages and emotions followed a separatist paradigm where languages and emotions were viewed as distinct phenomena. In the field of L2A, for example, researchers typically examine the effect of motivation in learning, foreign language anxiety, attitudes towards the language learned as variables affecting L2 learning, its outcome and its use. Gardner and Lambert (1959) were the first to demonstrate a positive and statistically significant relationship between motivation, positive attitudes toward the L2 and its speakers and mastery of L2, especially those aspects that are less susceptible to conscious manipulation (for instance, phonology), and as research grew in the area, attitudes were shown to be one of the key variables predicting the level of L2 achievement. Whereas attitudes commonly refer to "underlying psychological predispositions to act or evaluate behavior in a certain way" (Pavlenko, 2005, p. 31; Gardner, 1985), motivation is understood as "the combination of desire and effort to achieve a particular goal, which links individuals' rationales for particular activities with the range of behaviors and degree of effort employed in achieving their goals (Pavelnko, 2005, p. 31; Gardner, 1985). Gardner and Lambert (1972) distinguished between integrative and instrumental motivation (as see in Chapter 2). Such affective variables have thus been incorporated into models of second language acquisition as they can explain the different levels of L2 outcome (Baker, 1992; Gardner, 1980, 1985, 1988; Gardner and Lambert, 1972; Krashen, 1977; Schumann, 1978). The best known among them is Krashen's Monitor Model (1977, 1981, 1994) which involves the Affective Filter, which comprises factors such as attitudes, motivation, and anxiety. The Affective Filter Hypothesis states that although affective factors do not have a direct effect on language acquisition, they can facilitate or prevent input from reaching the language acquisition device (Krashen, 1994). Learners with positive attitude and low anxiety have a 'low filter' and will reach high proficiency, while learners with negative

attitudes and high anxiety have a 'high filter' that will block the input, impeding L2 learning. Another affective variable that influences the L2 learning process is anxiety (Scovel, 1978; Gardner and McIntyre, 1993). Whereas facilitating anxiety motivates the learner to fight the learning task, debilitating anxiety motivates the learner to flee the situation (Bailey, 1983; Chastain, 1975; Kleinmann, 1977; Scovel, 1978). A distinction is also made between trait anxiety, a personality characteristic, and state anxiety, a situation-specific response to an anxiety-provoking stimulus, such as foreign language learning anxiety, defined as "the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning" (MacIntyre and Gardner, 1994, p. 284), which stems from the learner's threatened self-esteem, fear of failure, fear of negative evaluation, or apprehension about communicating in the L2. Trait anxiety has been the focus of recent research by Dewaele (2002a, 2002b; Dewaele and Furnham, 1999, 2000, Dewaele, Petrides, and Furnham, 2008) who analyzed introverts and extroverts in their level of arousal and their ability to cope with the stress involved in L2 speech production (as in speaking on the phone or speaking in public).

In the field of bilingualism (and multilingualism), psycholinguistic studies and bilingual memoirs investigate the emotional impact of the languages of the bilingual. It has been shown (mainly Altarriba & Morier, 2004; Dewaele, 2004, and the works of Pavlenko, and Wierzbicka, among others) that especially when a second language is learned after puberty, the two languages differ in their emotional impact such that the first language is the language of personal involvement, emotional closeness and intimacy and the second language the language of distance and detachment with lesser emotional impact. Emotions conveyed through the first language are felt to be more real and more intense than those conveyed through a second language: its emotional weight is stronger since it is the language used to code early experiences of childhood. In contrast, one's second language, learned later in life, is linked to emotional distance and detachment and carries less of an emotional weight since it is learned in a more neutral setting.

Altarriba (2003) explains that L1 emotion words have strong semantic representation because of their recurrence and traces in memory. Emotion words in a less frequently used language are less deeply encoded and do not have the same connotation as those in L1.

Schrauf (2000) reports that memories of emotional events in the L1 are felt more vividly and intensely. For example, the primary emotionality of the first language is commented on by bilingual writers who learned their second language in late childhood or adulthood:

> …Chinese is the language with the deepest emotional resonance for me. It was the only language which mattered, and I think of it as the language of my heart. Perhaps that's why, even now, when I cry, I cry in Chinese (Minfong Ho, in Novakovich & Shapard, 2000, p. 161; cited in Pavlenko, 2002, p. 47).

> Spanish certainly was the language of storytelling, the language of the body and of the senses and of the emotional wiring of the child, so that still, when someone addresses me as 'Hoolia' (Spanish pronunciation of Julia), I feel my emotional self come to the fore. I answer Sí, and lean forward to kiss a cheek rather than answer Yes, and extend my hand for a handshake. Some deeper or first Julia is being summoned. (Alvarez, in Novakovich & Shapard, 2000, p. 218; cited in Pavlenko, 2002, p. 47-48).

> Chaque faux bilingue doit avoir sa carte spécifique de l'asymétrie lexicale, pour ce qui me concerne, c'est en français que je me sens à l'aise dans une conversation intellectuelle, une interview, un colloque, toute situation linguistique faisant appel aux concepts et aux catégories appris à l'âge adulte. En revanche, si j'ai envie de délirer, me défouler, jurer, chanter, gueuler, me laisser aller au pur plaisir de la parole, c'est en anglais que je le fais. (Huston, a Canadian writer from Alberta who emigrated to France, in Huston, 1999; cited in Dewaele, 2004)

> [Every false bilingual must surely have their own particular asymmetrical lexical map. To my case, if I am involved in an intellectual conversation, an interview, a colloquium or any linguistic situation that draws concepts and categories learned as an adult, I feel most at ease in French. On the other hand, if I want to go mad, swear, sing, yell, be moved by the pure pleasure of speech, I do all that in English.] (translation by Dewaele)

Huston also comments on the constraints in language choice when expressing an emotion, especially strong emotions, such as anger. She writes the following about the expression of anger in a foreign language:

> (…) il y a toujours quelque chose de ridicule à s'emporter dans une langue étrangère: l'accent s'empire, le débit s'emballe et s'achoppe…on emploie les jurons à tort et à travers -et, du coup, on doit s'ingénier à trouver des moyens plus raffinés pour exprimer sa colère. (*Lettres Parisiennes*, 1986, p. 23; cited in Dewaele, 2006)
>
> [there is always something ridiculous about getting carried away in a foreign language: the accent gets worse, the rhythm runs off and stumbles… you use the wrong swearwords in the wrong way – and, as a result, you have to work at finding more refined ways to express your anger.] (the quote and the translation come from the study on Huston by Kinginger, 2004, p. 172)

Other psycholinguistic studies on bilinguals (and multilinguals) also demonstrate the emotional distance between the first and second language. In interviews with late bilinguals (Grosjean, 1982), personal involvement is expressed in the native language and detachment in the second. Bond and Lai (1986) and Javier and Marcos (1989) show that code-switching and L2 use reflect emotional distance such that ideas and expressions too disturbing in L1 are conveyed through the L2. Anooshian and Hertel (1994) also show that Spanish-English and English-Spanish bilinguals who acquired their second language after the age of 8 recall emotional words such as 'mother' and 'church' more frequently than neutral words such as 'table' or 'chair', reflecting their presentation in their native language.

Harris et al. (2003) analyzed the emotional impact of L1 and L2 words by comparing reactivity for reprimands, taboo words, aversive, positive and neutral words presented visually and auditorily in the L1 and the L2 of 32 Turkish L1-English l2 bilinguals, using electrodermal monitoring. Physiological reactions to taboo words and childhood reprimands presented auditorily in the L1 were found to have a much stronger impact than their L2 equivalents.

In a follow-up study, Harris (2004) found that reprimands presented in the L1 of early Spanish-English bilinguals elicited stronger responses to comparable expressions in the L2. Expressions such as 'I love you more than anything!' and the Spanish equivalent 'Te amo!' did not elicit significantly different responses. However, bilinguals who started learning English later in their childhood reacted similarly to reprimands in the L1 and L2, suggesting that age of acquisition of the L2 and proficiency modulate the speakers' physiological reaction to emotional language. Dewaele (2004a) focused on language choice for swearing among 1039 multilinguals with up to five languages. A negative correlation was found between AOA and language preference for swearing in the L2 such that the later the L2 was learned, the less preferable it became for swearing. No such effect was found in L3, L4, or L5.

In Dewaele (2004b), the perception of emotional force of swearwords and taboo words was investigated among 1039 multilinguals. Statistical analysis revealed that the perceived emotional force of swearwords and taboo words is higher in the L1 and gradually lower in languages learned later in life. Self-reported L1 attriters judged swearwords and taboo words in their L1 to be less powerful than those who are still dominant in their L1.

In another study, Dewaele (2008) found that, among 1459 multilinguals, nearly half of the participants judged the sentence "I love you" to have a greater emotional weight in their L1; a little less than a third judged it to have similar weight in their L1 and an LX, and a quarter felt that the phrase has more weight in an LX.

On the other hand, cases of bilinguals who have positive attachment to their second language and no attachment to their first language are not rare, especially for those who underwent negative experiences in their first language, leading, in some cases, in the loss of L1. For example, a World War II German refugee and American writer, Gerda Lerner, writes:

> The truth was, I no longer wanted to speak German; I was repelled by the sound of it; for me as for other Americans it had become the language of the enemy. … I ceased speaking German altogether. (Lerner, 1997, p. 40; cited in Pavlenko, 2002, p. 49).

Or, this personal recollection of an Eastern European who became an American writer:

> In my own case, English words didn't carry the political and emotional baggage of a repressive upbringing, so I could say whatever I wanted without provoking childhood demons, to which Croatian words were still chained, to tug at me and to make me cringe (Josip Novakovich, in Novakovich & Shapard, 2000, p. 16; cited in Pavlenko, 2002, p. 48).

Such cases of positive attachment to the second language are also evident in bilinguals who, attracted by the new language and its speakers, want to perform new emotional selves. In other cases, bilinguals who live in two or more linguistic and cultural environments view their multiple languages as equally significant and powerful in expressing emotionality and intimacy, showing the possibility of "internalization of new emotion categories, discourses and scripts in adulthood – which, in turn, may lead to creation to new emotion links between the self and the second language." (Pavlenko, 2002, p. 50).

3.5.2 Languages of emotions: performing affect in L2

On the other hand, the language *of* emotions, or the question of how second language learners and bilinguals use their first and second languages to express emotions has started to gain more attention just recently, with research done by Pavlenko, Dewaele, and Wierzbicka, among others. Against the separatist paradigm by which language and emotions are seen as independent from each other, Pavlenko (2002, 2005) argues that the social constructionist view of emotions as discursively constructed phenomena allows for a deeper understanding of work in bilingualism, emotions and cognition and the emotion discourses of bilingual speakers and L2 learners. In this view, emotion statements such as "I feel angry" or "I am sad", are not taken in literal terms as descriptions of people's

inner states, although they might be, but are considered as speech acts with rhetorical functions that speakers want to achieve (for example, to complain, or prompt the interlocutor to take a certain stance in a course of events or to personally to take a certain position with regard to a particular event).

To date, research on emotion concepts applied to second language learners has been minimal and we know very little about how one's first language and culture affects the expression of emotions in another language, especially when the categories of emotions differ from culture to culture. This present study stands in this line of research, with the aim of investigating the emotion discourses of monolingual and bilingual speakers of French and English.

Studies of L2 and emotions aim to determine to what extent individuals know "how to do" emotions (Pavlenko, 2005), how they interpret emotion displays and emotional expression in languages learned later in life. In fact, L2 learners need to know more about the target language than just the phonological, morpho-syntactic rules of the second language. In terms of communicative/pragmatic competence, they not only strive for linguistic accuracy, but also for social and pragmatic appropriateness. As seen earlier in several autobiographies of bilingual authors, L2 speakers perform different emotional selves depending on the language used, they also perceive the emotion with a different degree of resonance/impact depending on the language in which it is expressed. In other words, they need to "learn" how to feel in another language because the emotion terms and concepts of one language do not neatly map onto the emotion lexicon of another. Pavlenko (2005), giving her personal example, talks of "distinct emotional lives in two languages", Russian and English, "whose emotion terms and scripts at time collide and clash, leading to misunderstanding, tears, and apologies" (p.77).

For an L2 learner and user, expressing emotions in a foreign language is probably one of their greatest challenges (Dewaele, 2008). If the emotion is not expressed well, misunderstandings may occur, the speaker may lose face and the interpersonal relationship between the speakers may be affected. So, how can an L2/LX user express

an emotion appropriately in the L2/LX, especially for expression of strong emotions? Dewaele (2006) describes, in an anecdote, how he discovered he was unable to express anger in Spanish (his L4) while dealing with a missed airplane at a Portuguese airport:

> My boiling frustration and indignation could not be channeled into Spanish sentences. I then switched to English, and although it is my third language (L3), I felt I could express anger in it much better than in Spanish. (p. 119)

He continues to explain,

> When engaging a linguistic confrontation, one needs to be quite sure of oneself. Rusty armor with chinks is worthless, and listening to my wooden Spanish, I felt like a beginner karate student facing a black belt. I realized that grammatical, lexical or sociopragmatic errors would undermine the perlucotionary effects I was seeking, that is, an apology and an offer for help to catch a different flight. Stumbling or hesitating would make me look like an angry fool, swearwords were out of bounds, in other words, my tongue was tied. (p. 119)

When he later analyzed the situation, he realized that he lacked the anger repertoire in Spanish and the fluency needed to gain the upper hand. He could not translate the strength of the emotion quickly and accurately enough in Spanish and because he wanted to be projected as a legitimately angry customer demanding compensation, and not an abusive foreign customer, he switched to his L3 English and an agreement was reached. Many other bilingual or multilingual speakers, including myself, can relate to this anecdote, showing that in multilingual interactions, speakers may have preferences for specific languages for expressing strong emotions (Dewaele, 2006). Dewaele (2008) presents two main causes for this challenging task of expressing emotions, for example, when one's 'blood is boiling'. First, in native speakers' emotional interactions, language processing (production and perception) is mostly automatic (Paradis, 2004) and so attention can be paid to the content of the interaction. However, non-native speakers' language processing is more controlled, involving search for words, expressions, grammar rules, pragmatic rules, idioms and metaphors, and because of the high demand on working memory, the L2 user has less time to pay attention to content and is much likely to stumble at some point during the exchange. A second challenge is that L2 users

have potentially incomplete conceptual representations of emotion words and scripts, and of metaphors and other figures of speech (Dewaele, 2008). Gibbs et al. (2002) suggest that speakers use metaphor to convey subtle meanings, which may not have been consciously intended at the time of production. Native speakers resort to the use of metaphors in order to describe their emotional experiences in more detail and with more nuance than the literal emotion lexicon, an asset that non-native speakers may not all have.

3.5.3 L2 emotion concepts

In the literature of the bilingual lexicon (refer to Chapter 2), models of bilingual representation and processing commonly link words of different languages to a single universal conceptual store. However, some scholars have argued that conceptual representations of abstract (De Groot, 1993) and concrete (Paradis, 1997) words may vary across languages and this variability needs to be taken into account in a model of the bilingual lexicon. Pavlenko (1999) has argued that bilinguals' words are not grouped into a single conceptual store but that there is variation across languages. Pavlenko (2008) extends this argument further to emotion concepts, described as "prototypical scripts that are formed as a result of repeated experiences and involve causal antecedents, appraisals, physiological reactions, consequences, and means of regulation and display" (p. 150). She sees these concepts as being embedded within larger systems of beliefs about psychological and social processes.

The advantage about the view of emotion concepts as scripts is that it does not imply a position in the universalist/relativist debate since the focus is not on the emotion per se, but on their conceptualizations. This approach is compatible with both the universalist view in that it benefits concepts that are elicited in shared human experiences and the relativist view in that it recognizes the experiential and script-like nature of emotion concepts and the differences in emotion concepts across languages and cultures (Pavlenko, 2008). Saying that emotion concepts vary across speakers of different

languages does not imply a physiological variation, it simply means that individuals evaluate and interpret their own and others' experiences from a different vantage point (Pavlenko, 2008). She points out that cross-linguistic and cross-cultural differences have been found in all constituents of emotion concepts, including causal antecedents, appraisals, physiological states associated with particular emotions and consequences and means of emotions regulation and display.

A comparison of emotion concepts across languages reveals three possible relationships: complete overlap, complete separation, or partial overlap (Pavlenko, 2008, 2009). For an L2 learner, the case of complete overlap is the most advantageous since the acquisition of L2 emotion concepts may be facilitated by positive transfer of L1-based concepts. In the case of complete separation where L2 learners are faced with emotion concepts that have no translation equivalents in their L1, they eventually undergo the process of secondary affective socialization to develop prototypical scripts for these emotions: they learn what events elicit such emotions, in what contexts and how these emotions are displayed and the consequences they may lead to (Pavlenko, 2008). Examples of such language- and culture-specific concepts are the English 'frustration' (Panayiotou, 2004), Russian *perezhivat'* (to experience something keenly/to worry/to suffer things through) (Pavlenko, 2002a), Greek *stenahoria* (discomfort/sadness/suffocation) and *ypohreosi* (deep sense of cultural and social obligation) (Panayiotou, 2004). In the case of partial overlap, there are four different types of overlap. The study by Grabois (1999) mentioned earlier provides an example of "core overlap" where the core meanings of the concepts overlap (as in 'love' and *amor*) but the links between the category differ (e.g., English speakers preference for metaphoric or symbolic associations vs. Spanish speakers preference for sensory and referential associations). In the "nesting" configuration, one concept represents a subpart of another, as evidenced in the English 'jealousy' and Russian translation equivalent *revnost*, which only refers to jealousy in intimate relationships or in sibling rivalry but not to jealousy of someone's good fortune, for which Russian has another term, *zavist'* 'envy' in English (Stepanova Sachs & Coley, 2006). The "split" type is found where

emotion categories referred to with a single term in one language are lexically and conceptually differentiated in the other language. For the single English term "anger", Samoan has two, German three, Mandarin Chinese five, and Biblical Hebrew seven. In the last type of partial overlap, "differentiation", a concept in one language shares aspects (antecedents, consequences, etc.) with several concepts in the other language, while still retaining some language- and culture-specific properties. For example, the Greek concept *ntropi* shares aspects of the English 'shyness', 'shame', 'embarassment', and 'discomfort' (Panayiotou, 2006).

Given this conceptual nonequivalence of emotion concepts across languages, Pavlenko (2008) argues that models of a single, unified conceptual store are too simplistic in describing the relationship between emotion words and concepts. She describes seven conceptual processes taking place in the bilingual lexicon and argues first that emotion concepts can *co-exist* such that representations are similar to those of monolingual speakers of the respective languages. For example, in Stepanova Sachs and Coley (2006), Russian-English bilinguals categorized emotion-eliciting events in each language similarly to monolingual speakers of Russian and English.

However, in some cases, elements of the L1 may be *transferred* to the L2 concept, especially in the case of instructed L2 learners who do not use the L2 in authentic interaction outside the classroom and thus are not socialized in the target language community. This may result in positive transfer in the case of identical concepts but to negative transfer for partially overlapping or language-specific concepts. For example, Pavlenko and Driagina (2007) found that, in various narrative tasks, advanced American learners of Russian consistently use the copula verbs *byt'* 'be' and *stanovit'sia* 'become' with emotion adjectives in contexts where Russian monolinguals use verbs. When L2 learners are socialized in the L2 community, they may internalize new concepts not encoded in their languages. Studies of Greek-English bilinguals in Panayiotou's study (2004) showed evidence of internalization of the English concept of frustration, non-existent in Greek, by use of code-switching even when speaking Greek.

For partially overlapping concepts, L2 users may show evidence of conceptual *restructuring* of their existing L2-based concept being modified but not fully approximating the target. For example, in Stepanova Sachs and Coley (2006), Russian-English bilinguals grouped situations eliciting jealousy and those eliciting envy together as similar (English jealousy and envy are used interchangeably), where Russian monolinguals separated the two situations.

Bicultural bilinguals may also experience *convergence* of their partially overlapping concepts in the L1 and the L2 to form a unique concept, different from both the L1 and L2 concepts, especially in communication with other bicultural bilinguals. However, no evidence of convergence has been examined to date. Conceptual shift may take place for L2 users usually residing in the L2 context, whose representations of partially overlapping concepts have completely shifted to the L2-based concepts (as opposed to restructuring where the shift has not completed). Russian-English bilinguals' narrative performance showed that in their Russian narratives, a combination of change-of-state verbs and adjectives was used to describe emotions as states, rather than processes, thus displaying L2 influence on L1 (Pavlenko, 2002a).

Finally, L2 users, especially immigrants who have resided in the target language country for a long time who use the L2 more and rely less or not at all in the L1 can undergo the process of attrition of L1 emotion concepts and emotion vocabulary, making it difficult to express emotions in the first language. Though they still recognize the concepts, they are not essential for their interpretation of the world around them. Again in Pavlenko (2002), Russian monolinguals relied on the main concepts of *rasstraivat'sia* (to be getting upset) and *perezhivat'* (to experience things keenly/to worry/to suffer things through) in their retelling of a short film, whereas Russian-English bilinguals only used the notion of 'upset', which does not invoke the same meaning of *perezhivat'*.

To sum up, Pavlenko's definition of emotion concepts as prototypical scripts with various degrees of overlap depending on the languages considered allows for a fine-grained cross-linguistic analysis of those concepts. She notes that the bilingual lexicon

and their conceptual representation are dynamic, and may change over time based on their experiences learning the L2 and living in the L2 target community. Thus, bilinguals and monolinguals have different L1 and L2 emotion concepts and because of the complex organization of the bilingual mental lexicon influenced by L2 socialization and conceptual representations, production and perception of emotion words and discourse in the bilinguals' different languages is also a complex and interesting phenomenon. We turn our attention to the discourse of L2 emotion.

3.5.4 The bilingual emotion lexicon

Recent research has shown that emotion words such as *love* and *hate*, and emotion-laden words, such as kiss and rape, differ from concrete and abstract words in the way they are represented and processed (Altarriba and Santiago-Rivera, 1994; Grabois, 1999; Dewaele and Pavlenko 2002; Altarriba, 2003; Harris et al., 2003; Altarriba and Bauer, 2004; Altarriba and Canary, 2004; Dewaele, 2008; Pavlenko, 2008).

At present, studies on the bi- and multilingual emotion lexicon are still relatively new in this area of research (dating from the nineties), and mostly deal with bilingual (not multilingual) speakers. Given the cross-linguistic and cross-cultural differences in the emotion lexicon, how are L1 and L2 emotion words and concepts represented and processed similarly or differently in the bilingual's mind? Research on emotion words, such as 'fright, 'grief', 'love', 'hate' and on emotion-laden and emotion-related words, that is, words with a strong emotional connotation such as 'cancer', 'rape', 'baby', or 'kiss', show that these words are represented differently from abstract ('charity') and concrete ('desk') words in the mental lexicon in terms of concreteness, imageability and context-availability. Context-availability refers to "the ease with which a context or circumstance can be recalled for a particular word" (Altaribba, Bauer, & Benvenuto, 1999, p. 578). They found that for concreteness and context-availability, emotion words were rated significantly lower than both concrete and abstract words whereas for imageability, they were rated lower than concrete but higher than abstract words.

Next, Altaribba et al. (1999) gave 55 English monolingual undergraduates a list of 372 abstract, concrete, and emotion words and asked them to provide the first word, meaningfully related to the stimulus. Analysis of this word association showed that emotion words had the highest mean number of associations, followed by abstract then by concrete words. The study replicates the results of Anooshian and Hertel (1994) who found that in a L1 and L2 word list recall of 18 Spanish-English and 18 English-Spanish bilinguals, L1 emotion words were recalled better than neutral words.

In a follow-up study, Altarriba (2003) examined the ratings of the three types of words by 63 Spanish-English bilinguals with a mean LOR in the U.S. of 17 years. Subjects rated a list of 315 Spanish words on concreteness, imageability and context-availability. Results parallel those of Altaribba et al. (1999) in that emotion and emotion-laden words are rated as less concrete but more easily pictured than abstract words. However, bilinguals rated equally for Spanish emotion and abstract words in terms of context-availability, suggesting that concrete, abstract, and emotion words are represented similarly in the English and Spanish lexicons in terms of concreteness and imageability, and that for Spanish-English bilinguals, Spanish emotion words are more readily contextualized than corresponding English words for English speakers.

Altarriba and Bauer (2004) found similar results for 45 monolingual English speakers in that emotion words function as prime for other emotion words ('happy'-'sad') but not for semantically related abstract words ('rage'-'violence'). In a follow-up study, Altarriba and Canary (2004) added a group of 45 Spanish-English bilinguals with a mean LOR in the U.S. of 14.4 years and compared their performance to that of the English monolinguals. They found positive affective priming effects for both groups in high and medium arousal conditions. The bilinguals were slower than the monolinguals however, suggesting that the lexical search may be taking place in two languages when processing emotion-laden words.

Another aspect of the study of bilingual mental lexicon focuses on the lexical organization of semantic domains of emotions. Heider (1991) used network

representations of particular clusters of emotion words to compare emotion lexicons of Javanese speakers of Indonesian with those of Minangkabau speakers of Indonesian, elicited in their L1 Minangkabau and L2 Indonesian. He found that Indonesian was generally considered the more appropriate language for expression of strong emotions. Minangkabau speakers of L2 Indonesian also showed greater cultural consensus about the relationships between different Indonesian emotion words than did Javanese speakers of L2 Indonesian. This may be due to the Javanese reticence in emotion talk and the fact that the Minangkabau talk more about emotions than the Javanese, even more so when they appeal to their L2 Indonesian.

Moore et al. (1999) examined the organization of semantic domains of emotions in Japanese L2 users of English and Chinese-English bilinguals in terms of similarity. 15 emotion terms that had translation equivalents in all three languages were chosen, and subjects were given 105 consecutive triads of different combinations of the 15 terms and were asked to pick out the term most different in meaning from the other two. Results demonstrated that the global configurations of the three language groups were similar, but there were also some significant differences. For example, the Chinese term for 'envy' *xian mu*, was judged as more pleasant and favorable than its English counterpart. Results also showed that the judgments of Japanese L2 users of English and Chinese-English bilinguals elicited in English were located somewhere between those offered by English speakers and Japanese and Chinese speakers respectively, in their native languages. These results suggest that bilinguals' L2 semantic domains of emotions are distinct from those of monolingual speakers of L1 and L2 (for Japanese L2 users of English) and that bilinguals have distinct semantic spaces for L1 and L2 emotion domains (for Chinese-English bilinguals).

Word association studies of bilinguals have also allowed to look closely at cross-linguistic differences in semantic networks of emotion and emotion-laden words. Grabois (1999), for example, examined free word associations to three emotion words 'love', 'happiness', and 'fear', and one emotion-laden word 'death'. Subjects included 32 native speakers of Spanish, 32 American L2 users of Spanish (with LOR in Spain ≥ 3 years or

more), 32 American L2 learners of Spanish (students in a year-long study-abroad program in Spanish, 32 American foreign language learners of Spanish (enrolled in Spanish courses in an American university) and 32 native speakers of English with no knowledge of Spanish. Differences in the lexical networks of native speakers of English and Spanish were found. In the domain of 'love', native speakers of English favored indirect (i.e., metaphoric and symbolic) associations such as 'heart', 'red', 'roses', while native speakers of Spanish preferred sensory and referential associations. Spanish speakers also picked *ternura* (tenderness, affection) and *cariño* (affection, liking, tenderness) which do not have exact translation equivalents in English. Native speakers of English picked 'family' more frequently while *amigos* (friends) ranked higher in lexical networks of Spanish native speakers. In the domain of 'happiness', 'money' appeared more frequently in the English native speakers' responses and *paz* (peace) in the Spanish ones. In the domain of 'fear', the native English speakers' responses related to the effects and displays of fear ('anxiety', 'nervous', 'stress', 'sweat', 'scream', 'shacking') whereas the central association for the native Spanish speakers was *soledad* (solitude, aloneness, loneliness). In the domain of 'death', native English speakers favored words relating to ceremonies and related objects ('funeral', 'coffin', 'cemetery', 'grave') while Spanish speakers favored affective terms (*dolor*, pain, *tristeza*, sadness, *soledad*, solitude, *pena*, sufferance, *angústia*, anguish). Correlational analyses showed that the responses of L2 users of Spanish correlated higher with the native Spanish group than L2 and foreign language learners of Spanish.

3.5.5 Perception and expression of emotion in L2

Experimental studies on emotion words can only give us a small glimpse of the complex activity that is the linguistic expression of emotion. A number of researchers have also looked at the L2 emotion discourse in order to examine more closely how emotion and emotion-laden words and expressions are perceived and used in the L2

speech. Research confirms that perception and expression of emotion as an illocutionary act is more difficult in the L2 (learned later in life) than in the L1.

One of the seminal works in the area of L2A and emotion is Rintell (1984) which examined the L2 learners' perception of emotion in speech. Subjects included 19 native English speakers and 127 English as a Second Language (ESL) learners, grouped into three proficiency levels (Beginner, Intermediate, Advanced). They were asked to listen to 11 conversations between two native English speakers recorded on tape and identify which emotion (among the six proposed: pleasure, anger, depression, anxiety, guilt, disgust) best characterized each conversation, and also to rate the intensity of the emotion. It was found that ESL learners had greater difficulty in accurately identifying and rating the intensity of emotions than the control native group. Linguistic and cultural background, and language proficiency played a crucial role in the learners' performance. While advanced learners scored significantly higher than beginners and learners at the intermediate level, they still fell short of the results of the native speakers, identifying the emotion accurately only about two-thirds of the time. Chinese students were also found to have greater difficulty in performing the task accurately than Arabic- and Spanish speaking students, which is explained by the fact that the Chinese culture is more different from the American culture than the other two with respect to the social and linguistic conventions governing the expression of emotions.

Using a similar research design, Graham et al. (2001) also found a strong effect of cultural competence on the recognition of emotion in English voices by Japanese and Spanish ESL learners. Both groups performed significantly lower than the control group of English native speakers, with the Spanish group performing better than the Japanese group. However, level of proficiency was not a significant factor in the judgments of the intended emotions. Both Rintell (1984) and Graham et al. (2001) suggest that the perception of emotion in L2 is linked to typological similarity with the L1 and also cultural similarity, with regard to emotion scripts.

Panayiotou (2004) asked five Greek-English and five English-Greek bilinguals to respond to the same story read to them in two cultural versions, first in English, then a

month later, in Greek. The protagonist involved a businessman Andy, living in the United States, and Andreas, a Cypriot, living in Cyprus, who worked long hours in order to be successful but neglected his family, girlfriend and friends. After each reading, the subjects were asked to assume that Andy/Andreas was a person close to them and they were asked to describe their emotional reactions to his behavior. The subjects' reactions differed depending on the language in which it was read to them, with more concern expressed for Andreas and indifference and disapproval expressed for Andy, indicating that each story was placed within a different set of sociocultural values and scripts. Some subjects resorted to code-switching, in order to express their emotions fully, mostly from Greek to English, to use the terms 'concern', 'frustation', 'indifference', 'sympathy' and 'pity'. Greek terms were used in a language- and culture-specific manner, with *ypohreosi* 'deep sense of cultural and social obligation' being something that Andreas would feel but Andy would not. Responses to the story and metalinguistic comments showed that bilinguals interpret the same events in distinct contexts in a language- and culture-specific manner.

A series of studies by Pavlenko investigated the discursive construction of emotions in narratives elicited from recalls of a three-minute long film *The Letter,* that had a soundtrack but no dialogue. There were two versions of the script, *The Letter*, shot on location in the United States, and *Pis'mo* (The Letter), on location in Kiev, Ukraine, to control for context effects. In each film, a woman received and read an apparently upsetting letter; a roommate walked into the room and read the same letter without permission; the woman grabbed the letter away from the roommate and leaves the room. Pavlenko (2002a) conducted the film recall experiment with 31 late Russian-English bilinguals and 40 native speakers of Russian interviewed in Russia and 40 native speakers of English interviewed in the United States. It was found that Russian speakers privileged more emotionally charged words such as *gore* (grief, despair), where Americans talked about sadness, or *gnev* (wrath, ire), where Americans talked about anger. Consistent with the lexical patterning of each language, American narrators favored emotion adjectives (68% of all emotion terms), while Russian narrators favored

emotion verbs (39% of all terms), particularly imperfective and reflexive verbs stressing the processual aspect of the emotional experience. The analysis of bilinguals' narratives showed that in identifying the protagonist's emotional states, bilinguals generally patterned, in each of their languages, with the monolingual speakers of that language, using appropriate lexical resources in each case, such as adjectives in English and verbs in Russian. Cultural- and linguistically specific emotion scripts were also invoked by the subjects. For example, the notion of privacy, absent in the Russian culture and language, was featured in the English narratives. However, a closer examination of the narratives revealed a significant amount of cross-linguistic influence. For example, L1 transfer from Russian was found in the use of emotion terms, such as 'she is deep inside herself'. L2 transfer from English was also found in the use of adjectives, instead of verbs, in the bilinguals' Russian narratives. Where Russian monolinguals used action verbs, some bilinguals opted for change-of-state verbs with emotion adjectives, which are inappropriate in Russian, exhibiting a shift of conceptualizations. In these instances, the bilinguals adopted the English adjectival pattern and violated the Russian sentence structure and discourse pragmatics while trying to transfer the L2 linguistic frames into L1 and to lexicalize emotions as states rather than as processes. Often, the narrators themselves realized that they were not using the appropriate frames and started pausing, stumbling, stuttering, self-correcting, and providing a meta-linguistic explanation.

Pavlenko and Driagina (2007) used the same film recall experiment to compare the uses of emotion vocabulary in narratives elicited from 49 monolingual speakers of Russian, 50 monolingual speakers of English, and 30 advanced American learners of Russian. Monolingual speakers differed significantly in the distribution of emotion terms across morphosyntactic categories: English speakers favored adjectives (75% of all emotion word tokens) for the description of emotion whereas Russian speakers favored verbs (51% of all emotion word tokens). Advanced American learners of Russian shifted from the adjectival pattern to the verbal pattern in Russian, thus approximating the usage of native speakers of Russian. The L2 learner corpus differed from the monolingual Russian corpus in 6 areas: morphosyntactic transfer from L1 (the English pattern [Pro +

State Verb + Adj] was transposed onto Russian which favor emotion verbs), semantic transfer from L1 (the use of lemmas in the semantic field of *serdit'sia* 'to be experiencing anger/to be cross with someone' was consistent with that of the monolingual English speakers whereas none was used by monolingual Russian speakers), overuse of adverbial constructions (explained partially by L1 transfer and partially by instruction effects), absence of the language-specific verb *perezhivat'* 'to suffer, to worry, to experience something keenly' frequently used by native speakers of Russian, violations of appropriateness of sociolinguistic register (lexical choices were too literary or too strong), and a significantly lower proportion of emotion word tokens, even though the narratives were longer than either monolingual group.

Together, these studies suggest that while late bilinguals' emotional expression appears culture specific and linguistically appropriate, their affective repertoires reveal cross-linguistic influence in the appropriation of new concepts and scripts, the salience of certain concepts and terms, and the linguistic framing may shift in the direction of the dominant language. These studies also show some limitations in that they considered mostly elicited reactions to stories, describing either one's own (Panayiotou, 2004) or other people's feelings (Pavlenko, 2002a). The question of how bilinguals express emotions in every conversation and in narratives of personal experience is still to be investigated. One such major study is that of Rintell (1990).

Rintell (1990) is particularly interesting since it provides us with some insights into the expression of emotions by L2 learners. In her study, she collected personal experience narratives about emotional events from native speakers of English and intermediate ESL students. Her analysis showed that while both kinds of narratives were similarly structured, L2 learners' stories were far less elaborate than the natives: they used direct, explicit statements of emotional response and references to physical sensations, but they did not use figurative language ("none of us had the guts to say we did it", "my heart was pounding"), reported speech, epithets ("she's an angel", "he's a jerk") or depersonalization (switching from "I" to "you"), all of which were present in the

narratives of the native speakers. Also, much greater detail was found in the recounting of events in the native speaker stories, a feature that is believed to be extremely important to the expression of emotion because of its function of involving listener participation. Rintell's (1984, 1990) work consistently demonstrate the presence of systematic cultural differences in the categorization of emotion states, suggesting that comprehension of emotions conveyed in discourse is affected not only by language proficiency but also cultural competence and familiarity with emotion scripts available in the target language speech community (Pavlenko, 2002).

A series of studies have also looked at a specific category of emotion words, swear and taboo words in the L2. Dewaele and Regan (2001) analyzed the proportion of colloquial words (including swearwords) in a corpus of advanced oral French interlanguage of Dutch L1 speakers. They found a low frequency of swear and taboo words and colloquial words in general in interlanguage. The amount of authentic interactions in the target language and the total immersion in the target culture were linked to higher frequency of colloquial vocabulary. Length and intensity of formal instruction in the L2 was not predictive of the use of colloquial vocabulary.

Toya and Kodis (1996) point out that the use of swearwords and the pragmatic use of rudeness in an L2 are linked to the registers in the input and the level of confidence of L2 users. Through oral discourse completion tests, 10 advanced Japanese learners of L2 English were given 5 anger-causing situations and were asked how they would feel, how they would express anger and through an introspective interview, were asked to explain why they would express anger the way they chose. For example, in a scenario in which a vending machine ate one's lunch money, the native speakers of English said that they would react verbally (curse) and physically (kick or punch the machine). The L2 learners stated that they would express their anger verbally or would not be angry at all at an inanimate object. In another scenario involving waiting in the restaurant for 30 minutes, more L2 learners of English than native speakers of English stated that they would be angry and would feel justified in expressing their anger verbally. Overall, they found that English native speakers were more expressive in their verbal and non-verbal

display of anger than the advanced Japanese learners who tended to avoid swearwords. The frequency of use of rude expressions was linked to length of stay in the L2 country and the confidence of L2 users. Toya and Kodis also suggest that the lower degree of expressiveness in the L2 may be linked to the more restricted input to which the learners had been exposed and the lack of confidence in using angry words for fear of miscommunication.

3.5.6 Factors affecting emotional experience and expression in L2

The studies reviewed here on the perception and expression of emotions in an L2 show that L2 speakers use their affective repertoires in a strategic manner. Cross-linguistic differences in emotion lexicons and language learning histories, as well as the perceived emotionality of emotion terms in the first and second languages are among the different factors that have been shown to affect the speakers' emotional expression and perception.

Generally, three types of factors affect language choice and use in emotional expression. Individual factors such as language dominance and attrition, language proficiency, context of acquisition of L2, L2 socialization and perceived language emotionality, as we have seen in some studies already discussed, play an important role in the speakers' perception and expression of emotion.

Language dominance is a particularly important factor in language choice for emotional expression. L1 dominant speakers see their L1 as the most emotional language and use it as such whereas L1 attriters prefer to express their emotions in a later learned and now dominant LX or in both languages (Dewaele, 2004; Pavlenko, 2004). Deweale (2006) showed that in the expression of anger, which requires fast linguistic exchanges and allows little time for lexical searches, speakers favor languages in which they can express themselves more fluently and more comfortably. Dewaele (2008) also showed that language dominance was strongly associated to perceived emotional weight of the

phrase “I love you”: 60 % of the multilinguals who are dominant in their L1 felt the phrase was stronger in the L1.

A closely related factor is language proficiency. Rintell (1989, 1990)’s studies showed that speakers with low levels of proficiency have more difficulty expressing their emotions and interpreting accurately those of others. Grabois (1999) showed evidence of L1 transfer for low proficiency L2 speakers. Dewaele (2006) found that self-perceived oral proficiency in a language has a highly significant effect overall on the frequency of choice of that language to express anger. Those who perceive themselves to be very proficient in a language use that language more frequently to express anger. Subjects reported that infrequent use of language and the resulting drop in proficiency, even in L1, can impede its use of the expression of emotions. In the same study, statistical analyses showed that the effect of age of onset of leaning on language choice for the expression of anger was quite robust for the L2 and L3, and respectively weaker for all other languages.

Generally, a lower age of onset corresponded to a higher frequency of use of the language to express anger. In Dewaele (2008), self-perceived proficiency as an independent variable showed to have a strong association with the emotional weight of the phrase “I love you”: nearly 60% of participants who feel “I love you” is strongest in the LX consider themselves to be maximally proficient, against 40% of participants in the category “I love you is strongest in the L1”. Level of proficiency was also a significant factor in the amount of emotion lemmas and word tokens in Dewaele and Pavlenko (2002). Highly proficiency speakers used more emotion word tokens than their less proficient peers. In this study, other variables such as gender and extraversion were analyzed: female participants used a wider range of emotion lemmas and a greater number of emotion word tokens than the male participants, while extraverts used a wider range of emotion lemmas than introverts.

Context of acquisition has been shown to affect language choice for anger expression. In Dewaele (2006), learners who learned the language in a naturalistic or mixed context are more likely to express anger in that language than those who learned it in an instructed setting. This is explained by the fact that classroom instruction has

ignored emotional expression as a superfluous aspect of language, thus, has rarely included teaching L2 learners how to express emotions (Rintell, 1989, 1990; Toya and Kodis, 1996). An analysis of independent variables affecting the emotional weight of the expression "I love you" in Dewaele (2008) showed speakers who learned their language in a naturalistic context gave higher ratings on emotional force of those words in that language than instructed learners.

Analysis of the relationship between L2 socialization and representation and expression of emotions showed that speakers with socialization in L2 culture have distinct L1 and L2 representations, some approximating those of the target language speakers and some even showing L2 effects on L1 in a process of conceptual restructuring (Stepanova Sachs and Coley, 2006; Pavlenko, 2002). Wierzbicka (1994), a Polish-English bilingual linguist who moved to Australia from Poland as an adult, talks of her personal experience as her emotional experiences are transformed due to L2 socialization. Her daily emotions are perceived in terms of Polish lexical categories, with no exact translation equivalents in English. In an English-speaking context, she sees herself as talking, thinking and responding in terms of English lexical categories, with no exact lexical equivalents in Polish. In language choice for the expression of anger, Dewaele (2006) found that strong L2 socialization is linked to a more frequent choice of that language as opposed to a significant drop in the use of L1. Dewaele (2008) found that the level of socialization in the L2 is strongly linked to the perceived emotional strength of "I love you": nearly 60% of participants who feel "I love you" is strongest in the LX are moderately to highly socialized in the L2.

Finally, perceived language emotionality is another important factor in language choice and use for emotional expression. Most bi- and multilinguals see their first language as the most emotional, the language of personal involvement, and their second language or LX as the language of distance and detachment. Thus, expressing emotions in a language learned later in life feels fake and artificial (Dewaele and Pavlenko, 2002). The emotional impact of the language affects language choice of speakers, especially in arguments or fights or when speaking with children. Some may choose their L1 as their

more emotional language, while others may choose their L2 that offers more distance and detachment, thus, more control over the conversation or to avoid feelings of guilt and shame when using swearwords.

Contextual factors involve the interlocutor's linguistic competence, individual and interactional goals, perceived emotionality of the interlocutor's languages, and perceived language prestige and authority. In order to satisfy their interactional and personal goals, speakers may choose the language that can be best understood by their interlocutors, or choose the one that is unfamiliar to them. For example, in an argument or fight, a speaker may switch into an L1, not well understood by the interlocutor in order to derive emotional satisfaction from pouring out their personal feelings or to avoid hurting them. On the contrary, a speaker may choose the language that is most emotional for the interlocutor to intentionally hurt them (Pavlenko, 2005).

Finally, cross-linguistic differences in emotion terms and affective repertoires may affect the emotional expression and perception. In order to perform a particular type of affect, speakers may resort to a specific language that offers the richest variety of linguistic resources (e.g., swearwords for expression of anger or terms of endearment or diminutives for expression of love and intimacy) or they may appeal to code-switching or lexical borrowing to name a particular emotion precisely, especially when it is non-existent in the other language.

In order to examine how and to what extent (highly proficient) L2 learners *think like natives*, this study intends to explore, with descriptive means, how they use new L2 concepts. I am especially interested in concepts relating to the expression of emotion, since this is an area which is psychologically, socially, culturally, linguistically and typologically relevant to the study of conceptual development and change. In the past twenty years, it has been well demonstrated that "emotion concepts –and the linguistic means through which emotions are expressed- may differ significantly across languages and cultures" (for a list of references, see Dewaele & Pavlenko, 2002, p. 266). This view of emotion as culture-specific supports a functionalist approach to emotions as "an

assortment of socially and culturally shared scripts that allow members of different cultures to differentially interpret similar physiological, subjective, and behavioral processes" (p. 266). Where emotion categories and discourses of the two languages differ, the lexico-semantic and conceptual organization of emotion domains, the use and interpretation of emotion-related scripts may differ. These cross-linguistic and cross-cultural differences and their effect in L2 performance is the focus of the present study.

3.6 L2 DISCOURSE OF EMOTION

3.6.1 Affective repertoires

The performance of affect in discourse is referred to as "affective repertoires", defined as "an integral feature of situated language use, where emotion categories function not only to inform the interlocutors about the speaker's internal states, but also to perform interactional functions, to assign causes and motives to actions, to blame, to excuse, to legitimize, to account for events and phenomena, and to explicate the intricacies of social relations" (Pavlenko, 2005, p. 116). The range and the use of the affective repertoires differ not only cross-linguistically, but systematic intergroup differences in affective styles and their perception also exist among speech communities of the same language (e.g., African-Americans' high level of emotional engagement, compared to Eurpoean-Americans), and even individuals with a shared linguistic and cultural background may differ in affective styles (e.g., highly expressive people vs. less expressive people).

Previous research (Ochs and Schieffelin, 1989; Rintell, 1990; Besnier, 1990; and for a helpful summary, see Pavlenko, 2005, p. 118-124) has shown that affect can be indexed in discourse through various linguistic forms from the lexicon to morphosyntax, phonology, pragmatics (speech acts), and discourse features. Table 2 provides examples of the linguistic expression of affect.

Lexicon	Emotion words: upset, irritate, overjoyed. Emotion-laden words: invasion, molestation, rape. Kinship terms, honorifics, forms of address: mommy, daddy, old hag. Emotive interjections: uh-oh, yul, brr, YES!! Intensifiers: this is bloddy unbelievable! Hedges: I am sort of… like… not sure what this is all about. Curses and taboo words: go to HELL! Figurative language: she is jumping for joy, he is crushed.
Morphosyntax	Pronoun choice: tu/vous in French. Emphatic particles and expressive derivation: Russian diminutive suffix –chik. Relative clauses and tag questions conveying involvement: …shall we? … aren't you? Linguistic frames and grammatical categories: evidentiality, tense, aspect, mood, modality, voice, reflexivity, case marking, word order, right-left dislocation.
Phonology	Intonation, voice quality, sound repetition: alliteration, sound symbolism: flip, flap, sniff, etc.
Discourse Features	Code-switching Affective speech acts: congratulating, complaining, apologizing, insulting, praising, complementing, teasing, accusing, begging, joking, shaming, ridiculing, assessing, etc.
Conversation Analysis	Change of register and level of formality indexing intimacy, solidarity, inclusiveness, or used as distancing strategy. Reported speech, hedges, reduplication, right-left dislocations, tag questions, conversation management strategies: turn-taking, overlap, etc.

Table 2. Examples of linguistic expression of affect.

With regards to L2 learners' use of some of these discourse features, Rintell (1990) and to some extent, Pavlenko (2002) are, to my knowledge, the only studies that investigated the discourse strategies of L2 learners in emotional expression. Through the narratives of native speakers of English and intermediate level ESL learners, Rintell (1990) for example, found that figurative language was only used in native speech, direct descriptions of emotion was found in both native and non-native speech but extremely common in the non-natives' narratives, more details were given in native speech than in non-native speech, reported speech was commonly found in native speech while rare in non-native speech, the use of epithets of figurative descriptions of characters (e.g., "she's an angel" or "he's a jerk") was common in native speech and non-existent in non-native

speech, and finally, depersonalization (i.e., switching from *I* to *you* in describing one's own emotions) was used only in stories told by the native speakers. My study is designed to add to the literature of late L2 learners' discourses of emotion in L1 and L2 and also to give us insight into the communicative/pragmatic competence of L2 speakers in the specific domain of expressing emotion.

3.6.2 Previous research on L2 discourse of emotion

Research on L2 emotion vocabulary and L2 emotion discourse (affective repertoires) is still minimal and, to my knowledge, none has investigated French emotion words and discourse per se. The works of Pavlenko and Wierzbicka have extensively investigated the typological differences between English and Russian emotion concepts, words and narrative constructions of emotions. With regards to French, Pavlenko (2004a) and Dewaele (2004a, b, 2006)'s studies involved multilinguals with French as one of their other language, but these studies only looked at language choice for expression of emotion and perceived emotionality of taboo and swear words. One study that did involve a Portuguese-French bilingual (from a Portuguese migrant family but with French as her dominant language) is Koven (2004), who examined the narrative styles of the personal stories of emotional experiences of her subject, specifically focusing on the role of the speaker (as narrator, interlocutor, or character) to analyze how affective stances are indexed in the bilingual's narratives. The subject was asked to tell 12 stories of personal experience, once in French and once in Portuguese. The analysis showed, for example, that the subject spoke more often as an interlocutor in French and as a neutral narrator in Portuguese. Reported speech (character role) was used more extensively in French than in Portuguese, and shifts to familiar register occurred more often in French than in Portuguese. Again, although the study did involve French as one of the languages spoken, the focus was more on speaker role in the narratives than on the emotion

vocabulary. Moreover, because the study was a case study of one bilingual, the results, although interesting, may not be generalized into a general group of speakers.

A summary of the main studies on L2 (and any language other than the first) emotion vocabulary and discourse is provided in Table 3, partly adapted from Pavlenko (2005), with other relevant studies added. A detailed description of some of these studies can be found in Chapter 3.

Table 3. Studies of multilinguals' affective repertoires (partly adapted from Pavlenko, 2005, with author's additions).

Study	Participants	Analytical Approach	Results
Rintell (1989, 1990)	6 native speakers of English, 8 ESL students	Discursive analysis of narrative strategies in narratives of personal experience told in L2 English (as compared to strategies used by native speakers of English).	ESL students' stories were less detailed and elaborated than those of native speakers of English and thus less likely to engage listeners and elicit emotional response.
Toya and Kodis (1996)	10 native speakers of English, 10 Japanese learners of English	Oral discourse completion test, based on 5 anger-eliciting scenarios	L2 learners did not interpret the scenarios in the same way as the native speakers, and in some instances, they did not know how to express their anger adequately in English or did not feel comfortable doing so.
Pavlenko (2002a)	31 late Russian-English bilinguals	Quantitative and qualitative analys3s of elicited narratives based on film recall, told in L1 Russian and L2 English (as compared to narratives told by Russian and English monolinguals).	Narratives in L1 Russian and L2 English were language- and culture-appropriate, yet they also exhibited instances of L1 and L2 transfer of affective repertoires and emotion concepts.

Table 3 continued

Dewaele and Pavlenko (2002)	Study 1: 29 advanced Dutch learners of French, Study 2: 34 advanced Russian learners of English	Study 1: quantitative analysis of the frequency of use of emotion vocabulary based on one-to-one informal conversations where emotion words were most likely to occur. Study 2: quantitative analysis of elicited narratives based on film recall, both in Russian and English.	Overall: use of emotion vocabulary in French interlanguage and English interlanguage is affected (to different degrees) by language proficiency, gender, degree of extraversion, sociocultural competence, type of linguistic material.
Koven (2004)	1 simultaneous Portuguese-French bilingual	Discursive analysis of speaker role perspectives in L2 personal narratives told in Portuguese and French.	The speaker exhibited different affective styles in her two languages due to different socialization patterns in the two.
Panayiotou (2004)	5 Greek-English and 5 English-Greek bilinguals	Qualitative analysis of metalinguistic comments and code-switching in responses to stories told in Greek and English.	Bilinguals interpreted the twice-told stories in a language- and culture-specific emotional style yet they also appealed to code-switching.
Pavlenko (2004)	389 bi- and multilingual parents	Quantitative and qualitative analysis of responses to a webquestionnaire.	Factors affecting parental language choice for emotional expression include perceived language emotionality and cross-linguistic differences in affective repertoires.
Dewaele (2004a, b, 2006)	1,039 bi- and multilinguals	Quantitative and qualitative analyses of responses to a webquestionnaire.	L1 taboo and swearwords are perceived as stronger and more emotional and L2 words are perceived as weaker and thus less offensive and easier to use.
Pavlenko and Driagina (2007)	49 monolingual speakers of Russian, 50 monolingual speakers of English, 30 advanced American learners of Russian.	Quantitative and qualitative analyses of narratives based on film recall, told in L1 English and L2 Russian (as compared to narratives told by English and Russian monolinguals).	L2 learners' narratives approximated the verbal pattern of Russian emotion description, but also differed from the monolingual Russian corpus in 6 areas, including L1 morphosyntactic transfer and L1 semantic transfer.

Based on the information in Table 2, we observe several limitations of previous research on L2 and emotions, including:

- Small number of participants in some studies (Rintell, 1989, 1990; Toya and Kodis, 1996; Koven, 2004; Panayiotou, 2004).
- Use of webquestionnaire (Pavlenko, 2004; Deweaele, 2004a, b, 2006) that can only reveal information on language choice for emotional expression, but nothing on what they actually *do* with language to express emotion.
- Studies involving narratives based on film recalls (Pavlenko, 2002a; Dewaele and Pavlenko, 2002; Pavlenko and Driagina, 2007) or those eliciting emotional expression from made-up scenarios (i.e., what they would do or say in certain situations) (Toya and Kodis, 1996) did not involve personal experiences, so the emotions expressed were not their 'real' felt emotions, but reactions to certain situations or descriptions of other people's feelings.
- Lack of information on French conceptualization of emotion (based on French monolinguals) and the way L2 learners of French go about expressing emotions in their L2.

3.6.3 Stance

The study of stance, which has only begun taking up interest among linguists since the early years of the twenty-first century (Hunston and Thompson, 2000; Karkkainen, 2003; Precht, 2000; Jaffe, 2004; Englebretson, 2004, among others), represents an intersection of subdisciplines within linguistics, among them, corpus linguistics, systemic-functional linguistics, discourse-functional linguistics, cognitive linguistics, socio-cultural linguistics, and interactional linguistics, and covers the overlapping fields of anthropology, social psychology, education, and sociology. As a burgeoning field, much of the research on stance is at its infancy, and much of it has been qualitative in nature. For example, corpus linguists have treated authorial stance as

connected to particular academic genres, critical discourse analysts have studied embedded stances in political, cultural, and persuasive texts, socio-cultural linguists have analyzed stance-saturated linguistic forms as they are used to reproduce social, political, and moral hierarchies in different cultural contexts, and variation linguists aim to find correlations between a linguistic variable and either some other linguistic element of some non-linguistic factor, including age, gender, race, class, and so on, proposing that the study of stance can explain the motivation behind the use of morphophonological variants (Jaffe, 2009, Kiesling, 2009). Most of this research has taken on a qualitative approach. However, Hunston (2007)'s call for both quantitative and qualitative methodologies in the investigation of stance has been taken up recently by several researchers, among them, Kiesling (2009), who analyzed the use of the variable *–ing* as a way to display different kinds of stances among men in a college fraternity in northern Virginia, and Precht (2003b), who studied stance marker frequencies, part of speech frequencies, and the most common stance markers in British and American conversation.

3.6.3.1 Defining stance

According to Kiesling (2009), stancetaking is always a speaker's primary concern in conversation. Explanations, for example, are made with stances that give cues that an explanation is taking or is about to take place, that the speaker is taking on an "explainer" or teacher role, and that the interlocutor will be positioned as a listener or student. In order to be effective, the explainer must take an authoritative epistemic stance, which can be accomplished by the linguistic choices they make. In this sense, the informational function of language is subordinate to stancetaking. Because of this importance and the different perspectives linguists take on conceptualizing stance, there seems to be a lack of consensus on the definition of the term, and different terms have been used to refer to the same concept [2] (footnote on the next page).

The most compact definition is that of Jaffe (2009) who defines stancetaking as "taking up a position with respect to the form or the content of one's utterance" (p. 1). Generally, stance is understood as the speaker's commitment to the status of the information that they are providing, most commonly, their assessment of its reliability, based on their knowledge and belief about the facts. It conveys the speaker's perspective/assessment of something as more or less reliable and their belief that such and such is the case (Kärkkäinen, 2000). Whether the notion of 'truth' of the proposition expressed should be included in the definition depends on the researchers. Lyons (1977), Palmer (1986), Coates (1990), and Bybee et al. (1994) claim that epistemic meaning relates to the speaker's confidence or lack of confidence in the truth of the proposition expressed, whereas Perkins (1983), Holmes (1982), and Biber et al. (1999) adopt a broader definition as the speaker's state of knowledge or belief or opinion about the proposition or simply as the speaker's comments on the status of information in a proposition.

Du Bois (2007) also talks about a 'stance triangle': "stance is a public act by a social actor, achieved dialogically through overt communicative means, of simultaneously evaluating objects, positioning subjects (the self and others), and aligning with other subjects, with respect to any salient dimension of the sociocultural field; the "stance triangle" consists of two social actors and an object to which both are oriented" (p. 163). These social relationships, constructing and negotiating stance (i.e., the act of positioning oneself and others in relation to a proposition) are achieved and emergent in interaction, co-constructed with one's interlocutor(s) (DuBois 2007), and is thus dialogic in nature (Jaffe, 2009).

[2] Investigations on stance have been carried out under several different labels, including 'evaluation' (Hunston, 1994), 'intensity' (Labov, 1984), 'affect' (Ochs, 1989), 'evidentiality' (Chafe, 1986), 'hedging' (Holmes, 1988), 'epistemic modality' (Hyland, 1998), and 'stance' (Biber and Finegan, 1988, 1989; Conrad and Biber, 2000), 'appraisal' (Martin, 2000), 'attitude' (Halliday, 1994), 'metadiscourse' (Crismore, 1989). A complete summary of the terms used in describing the different types of stancetaking is available in Jaffe (2009, p. 7).

For the purposes of this study, I adopt the less rigorous, broader view of the definition, that of Biber and Finegan (1989): "by stance, we mean the lexical and grammatical expression of attitudes, feelings, judgments, or commitment concerning the propositional content of a message" (p. 93). Whatever its formal definition, stance is highly pervasive in everyday spoken interaction: speakers show more concern for marking their epistemic stance than marking attitudes or evaluations, or expressing personal feelings and emotions (Kärkkäinen, 2003). As Ochs (1992) note, speakers take a 'stance' in talk, just as in everyday life, they adopt (moral or political) stances toward social issues and controversies, which surfaces as rhetorical stances in discussions and arguments. This act of 'stancetaking' is thus a social act, performed in speaking, within an interaction, and its linguistic realizations is located within a sociocultural field that provides evaluative frameworks and relevant social identifications (Du Bois, 2007). Thus, Precht (2000) points out that social norms for stance use are systematically different across cultures, and that speakers are "culturally 'programmed' to express stance in particular ways" (p. 133, quote from the original author). If stancetaking varies cross-culturally, then, others will express stance differently and interpretation of the others' motivations and attitudes can be flawed She further found that among the 1400 stance markers available in English (Precht, 2000), English speakers only use about 150 words for 90% of their stance expression, suggesting that the expression of stance is shaped by culture and custom so that people are socialized to use particular stance markers in particular ways (Precht, 2003a).

3.6.3.2 Functions and types of stance

With respect to the function of stance, Hunston and Thompson (2000) note its three main functions: (a) expressing the opinion of the speaker vis-à-vis the propositions being expressed, and in doing so, reflecting the value system of that person and their community, (b) manipulating the hearer's attitude vis-à-vis these propositions (in part by

constructing and maintaining relationships between speaker and hearer), and (c) organizing the discourse, for example, by marking boundaries or highlighting significant parts (p. 6-13). These functions are not exclusive: a single instance of evaluation may perform two or three functions simultaneously.

Speakers may mark their personal stance in three different ways (Biber et al., 1999):

- Epistemic stance (or evidentiality), commenting on the certainty, doubt, reliability, imprecision, or limitations of a proposition, including comments on the source of information (e.g., *probably, sure, according to the President, think, know, believe*);
- Attitudinal (or affect) stance, conveying the speaker's attitudes, feelings, or value judgments (e.g., *surprisingly, unfortunately, love, want, bad, good, cool, beautiful, lovely*);
- Style (or manner) stance, describing the manner in which the information is being presented (e.g., *honestly, briefly*).

The linguistic expression of stance has generally been studied under the two main topics of evidentiality and affect, and of the two, Conrad and Biber (2000) found, from their best-known corpus study of stance adverbials, that marking of epistemic stance was more frequent overall than marking of attitudinal or style stances. Epistemic stance, or evidentiality, refers to the speaker's expressed attitudes towards knowledge: towards its reliability, the mode of knowing, and the adequacy of its linguistic expression (Chafe, 1986). It indexes particular systems of knowledge and authority, and serves to establish the relative authority of the speakers. In fact, speakers use epistemic stance in order to be recognized as having authentic or authoritative knowledge and/or to legitimate further acts of evaluation. Conversely, it can also be used to downgrade the speaker's authority and acknowledge other interactants' greater claims to hold relevant information (Jaffe, 2009). Affect, on the other hand, involves the expression of a broad range of personal

attitudes, including emotions, feelings, moods, and general dispositions (Ochs and Schieffelin, 1989).

Studies of evidentiality and affect have tended to focus on non-Western languages (Biber et al., 1989). For example, in Japanese, the difference between 'reportive' and 'non-reportive' descriptions, especially of people's states of mind, encodes an evidential distinction in the morphology of predicates (Kuroda, 1973, in Haviland, 1989). The lack of such studies in English stems, according to Biber et al. (1989), from the fact that stance has been assumed to be marked by tone of voice, duration, loudness, and other paralinguistic features, rather than encoded lexically or grammatically. The first major study of English evidentials (Chafe, 1986) distinguishes three aspects of the marking of evidentiality: (1) the reliability of the knowledge itself, (2) the mode of knowing (belief, induction, hearsay, and deduction), and (3) the source of knowledge (belief, evidence, verbal reports, and hypothesis). Biber et al. (1989) studied both evidential and affect markers in English as encoded in different grammatical and semantic categories and found 12 categories, representing 6 stance styles (emphatic expression of affect, faceless stance, interactional evidentiality, expository expression of doubt, predictive persuasion, oral controversial persuasion). The 12 categories are summarized below:

(1) Adverbs, indicating affect (positive and negative), certainty, and doubt (e.g., *happily, sadly, indeed, perhaps*);
(2) Adjectives, indicating affect (positive and negative), certainty, and doubt (e.g., *fortunate, shocked, obvious, dubious*);
(3) Verbs, indicating affect (positive and negative), certainty, and doubt (e.g., *enjoy, embarrass, conclude, assume*);
(4) Hedges (e.g., *about, sort of*);
(5) Emphatics (e.g., *for sure, really*);
(6) Modals indicating possibility (e.g., *might, could*), necessity (*ought, should*), and prediction (e.g., *will, shall*).

Of these, Kärkkäinen (1991) identified three main types of epistemic stance markers prevalent in native speakers of English (mostly of British nationality): modal adverbs (*really, perhaps, of course, maybe, etc*.), epistemic phrases (*I think, I suppose, I don't think, I know, etc*.), and modal auxiliaries (*might, will, should, may, etc*.), with epistemic adverbs being clearly the most common. Her data on American English, however, show epistemic phrases as the most common, then, modal adverbs, then finally, modal auxiliaries.

3.6.3.3 Stance in the present study

Previous studies of stance categories have largely focused on comparing stance marker use across languages, proficiency, or register. Important differences were found in use, which was mostly focused on written rather than oral discourse. Results on written discourse showed differences between native and non-native English speakers' writing, between writers at different proficiency levels, and between registers. In oral discourse, studies have shown differences between spoken and written stance, problems in non-native speaker epistemic stance expressions, and differences based on roles and power (for a list of references, see Precht, 2003b). These studies have mostly been qualitative and none involved late L2 learners, no studies were done with French, and none has investigated the use of stance markers in narratives.

The present study intends to provide new insights into these aspects that have not been investigated in previous research. Since no research has been done on the relationship between stance and the L2 discourse of emotion (as opposed to the study of affective stance in native speaker discourse) and few (Precht, 2000, 2003a, b, Kiesling, 2009) have been done on stance on a quantitative basis, the analysis of stance in this study will be more exploratory in nature. Without undermining the various theories of function of stance from the fields of variation linguistics, interactional linguistics and corpus linguistics, this empirical study on stance markers in L2 emotional discourse strives to uncover patterns of epistemic stance through close observation of the data,

thereby presenting new findings as regards its patterning in L2 discourse of emotion of adult English-French and French-English bilinguals. As noted by Precht (2000), speakers are culturally programmed to express stance in particular ways, by emphasizing or de-emphasizing the authoritativeness of their propositions. Similarly, Besnier (1990) points out that affective and epistemic stances are culturally grounded: they can index shared, culturally specific structures of feeling and norms for its expression. Given this cultural aspect of stancetaking, the empirical analysis of stance markers in L2 emotion discourse that we undertake in this study will allow us to investigate the L2 socio-cultural and pragmatic abilities of adult L2 learners. Lastly, notwithstanding the interactional character of stancetaking, since stance is in fact developed through interaction (which will be discussed again at the end of Chapter 7), for the purposes of the study (i.e., identifying levels of nativelikeness in the patterning of the use of stance markers), we will analyze the use of stance markers on a quantitative basis mostly, and make comparisons pertaining to group use (monolinguals vs. bilinguals) instead of individual use, in order to find patterns of use across cultures and languages in a first language, and compare them to patterns of use by L2 learners.

The next chapter explains the methodology of the study.

Chapter 4: Methodology

In this chapter, the methodology of the study is presented, including the design of the study with information on the procedure of data collection and on the participants. Then, we present how the data were counted and measured, as well as how they were analyzed.

4.1 RESEARCH QUESTIONS AND HYPOTHESES

As presented in Chapter 1, the goal of this dissertation was to address the following research questions:

1) Concerning the vocabulary of emotion, what are the range of emotion lemmas (measuring lexical diversity) and the frequency of lexemes, i.e., word tokens (measuring lexical productivity) used in L1 French and L1 English? How do L2 learners of French and L2 learners of English perform differently or similarly in their use of emotions lemmas and lexemes in their L2 and L1?
2) What factors (L2 proficiency, amount of L2 use, degree of L2 identification, L2 perception) affect the use of emotion lemmas and lexemes in L2?
3) Concerning the morphosyntactic categories of emotion words, what is the preferred pattern used for emotional description by native speakers of French and English? How do L2 learners of French and English perform differently or similarly in their L2 and L1? Given that the use of certain morphosyntactic patterns reflect how emotions are conceptualized in a language, do the performance of L2 learners show evidence of L1 or L2 conceptual transfer?
4) Concerning the discourse of emotions, how do native speakers of the L2 and L2 learners discuss emotion states, judge, or assess their propositions with regards to stance markers (evidentiality, hedges, emphatics, and modals)? What are the

proportions of stance in the stance categories investigated for the monolinguals and bilinguals? How do they compare to each other?

5) From a discourse analysis perspective, how do native speakers of the L2 and L2 learners construct emotions in discourse with respect to the details of the emotions described, the use of figurative language, reported speech, epithets, depersonalization and other linguistic devices?
6) Overall, what are the upper limits of L2 attainment in emotion lexicon and discourse? Is there evidence of nativelike or near-native performance in any of the areas analyzed?

In order to answer these research questions, the present study tests the following hypotheses:

- Hypothesis 1: Based on Rintell (1989, 1990)'s finding that ESL student's stories were less detailed and elaborate than those of native speakers of English, I hypothesize that monolinguals' narratives will be longer and more elaborate than those of bilinguals.
- Hypothesis 2: Following Pavlenko and Driagina (2007)'s findings that the learners' narratives contained a smaller proportion of emotion word tokens than the monolinguals' narratives, I also hypothesize that monolinguals will use more emotion word tokens than bilinguals, and their narratives will be lexically richer than the bilinguals'.
- Hypothesis 3: Dewaele and Pavlenko (2002) found that use of emotion vocabulary in French and English interlanguage was affected by language proficiency, such that more proficient learners used more emotion words. I, thus, hypothesize that highly proficient bilinguals will use more emotion word tokens than less proficient bilinguals and the lexical richness of their emotion vocabulary will be greater than less proficient bilinguals.

- Hypothesis 4: Following Pavlenko (2002), Pavlenko and Driagina (2007), and Wierzbicka (1991, 1992) who found that English favors emotion adjectives, often used with the state verbs *to be*, change-of-state verbs *to become, to get* and perception verbs *to seem, to appear, to feel, to look*, I hypothesize that English monolingual speakers will use more emotion adjectives than any other parts of speech.
- Hypothesis 5: As regards the upper limits of ultimate attainment and the possibility of nativelike or near-native outcome in the area of L2 lexicon (Bahrick et al., 1994; Marinova-Todd, 2003a), I hypothesize that some late L2 learners will behave similarly to the control group with regards to the proportion of emotion lemmas and tokens, morphosyntactic distribution of emotion words, and lexical choice.
- Hypothesis 6: Contrary to Rintell (1990) who found no instances of complex discourse features such as figurative language, reported speech, depersonalization, epithets, and detail, in non-native narratives, I hypothesize that with L2 learners at end-state, some or all of these features will be apparent in some bilinguals' narratives.

In addition to these hypotheses relating to emotion vocabulary and discourse features, we will also explore, at a comprehensive level of analysis, the expression of stance in the emotional discourses of English and French monolinguals and L2 English and L2 French bilinguals. Since stance expression has been shown to be systematically different across cultures (Besnier, 1990; Precht, 2000, 2003b), we will analyze these differences with respect to the proportion of stance lemmas and tokens in five categories (certainty evidentials, emphatics, doubt evidentials, hedges, and modals), the distribution of stance across these categories, and finally, lexical choice for stance marking. By a comparison of monolinguals and bilinguals' results, focus will also be given on the upper limits of L2 attainment and the possibility of nativelikeness.

4.2 OVERVIEW OF THE RESEARCH DESIGN

Based on the discussion above, my goal in this research is to investigate, both quantitatively and qualitatively, how American learners of French and French learners of English express emotional states similarly or differently in their second language, compared to the native speakers of each language. More specifically, I am interested in examining how L2 learners use the emotion vocabulary of the L2 compared to the native speakers of the L2 and also compared to the emotion vocabulary of their L1, which will enable analysis of any conceptual transfer between the emotion concepts of the L1 and L2. I am also interested in investigating the L2 learners' discursive construction of emotions in order to analyze how learners frame their emotional states in discourse through syntactic constructions, stance markers (evidentials, hedges, emphatics, and modals, indexing how they evaluate, judge, or feel about their emotional experience) and other relevant discourse feature (figurative language, direct or reported speech, depersonalization, metaphors, etc.).

4.2.1 Data collection

Data were collected from elicited narratives of personal stories of (positive and negative) emotional experiences from French monolingual native speakers and English monolinguals native speakers, as control groups, and also from late American learners of French and late French learners of English who have reached asymptote. For the L2 learners, narratives were told both in their L1 and L2, such that their L2 performance could be compared to that of the monolingual native speakers of the L2 and their L1 performance could be compared to monolingual native speakers of the L1. Analyses of the results will focus on how similarly or differently from native speech L2 learners/bilinguals perform their emotional expression lexically and at the discourse level, so that the upper limits of L2 achievement can be evaluated.

Participants were recruited through personal acquaintances, posters, and references (by email) from France (Montpellier and Paris) and the United States (Austin, TX, San Jose, CA, and Poughkeepsie, NY). They were not controlled for age or gender, but the only restriction that applied was that the bilinguals had to have lived in the L2 country for four years or more. Participation was voluntary and non-compensated, anonymity was maintained throughout the study and potential subjects could withdraw from participation at any time. As the sole investigator, the author met with the participants individually, at their home, office, or location of their choice. Each interview lasted on average thirty minutes for monolinguals and an hour to an hour and a half at the most, for bilinguals. In the first step of the procedure, participants completed a Language Background Questionnaire in which they were asked to give personal information (such as date of birth, gender, contact information, country of birth, current country of residence, education and profession), information on their language background (native and second languages, where/how they learned their second language, the language spoken at home, their proficiency in their second language, language preference in particular situations for particular purposes, etc…), and information on their residency/travel outside their native country. In the second data elicitation phase, subjects were asked to tell stories of emotional experiences. Monolinguals told their stories in their sole language (French or English), bilinguals in each of their languages (French and English). During these story-tellings, involvement of the interviewer was minimal. These narratives were audio recorded, then transcribed manually by the author. Emotion words and expressions, as well as special discourse features, which constituted the empirical core of this study, were counted manually as well.

The total length of time (in hours: minutes: seconds) of the whole corpus was 16: 52: 53, of which the total length of time for the monolingual corpus was 6:22:54 and 10:29:38 for the bilingual corpus. The range for length of time per speaker for the monolingual corpus was 3: 37 to 19:56, and for the bilingual corpus, 8:56 to 46:40.

The total corpus size (in number of words) was 90,483 words, of which the total size for the monolingual corpus was 44,267 and 46,216 for the bilingual corpus. The

range for corpus size per speaker for the monolingual group was 332 to 2,810 words, and for the bilingual group, 447 to 3,807 words.

More information on the data collection procedure is presented below.

4.2.2 Participants

A total of 72 subjects, who were recruited from the United States and France, participated in my study:

1) A control group of 20 native speakers of English (English monolinguals) [3]
2) A control group of 19 native speakers of French (French monolinguals)
3) 18 French learners of English (French-English bilinguals)
4) 13 American learners of French (English-French bilinguals)

The control group of monolingual native speakers of English (8 men, 12 women) consisted of 15 instructors and professors of various disciplines at a college in California, with education levels ranging from Bachelor's to Doctoral degrees. The other 5 native speakers were recruited from different professional backgrounds, including engineering and systems administration. The age range for these participants was from 23 to 63, with a mean age of 49.6. Except for foreign languages learned formally at school, the participants did not speak any other language for everyday use, and for most of the participants, English was the only language spoken at home while growing up (for 4 participants, their fathers could speak German, Italian, and Polish, due to their family and cultural backgrounds, but the frequency of use, at home, to the participants, ranged from rarely to never). None of the participants had lived in a Fancophone country for more

[3] With regards to terminology, in this dissertation, I use the term 'monolingual' to refer to native speakers of a particular language. The term 'bilingual' is used to refer to L2 learners at end state, for ease of comparison to monolinguals. I will, thus, use the terms 'French-English bilinguals' to refer to the French learners of English, and 'English-French bilinguals' to refer to the English learners of French.

than a month (5 participants lived in different countries including Turkey, Germany, South Korea, Bosnia, the Czech Republic, Italy, Spain and Serbia, for various amounts of time, from 6 weeks to 2 years). Relevant background information was obtained through a written questionnaire (see Appendix A).

The control group of monolingual native speakers of French (7 men, 12 women) consisted of 11 undergraduate and graduate students at the Paul Valéry University, Montpellier 3, and 9 other participants from different professional backgrounds including homecare provider, librarian, computer programmer, businessman, graphic designer, and history professor. All of the participants had at least the Baccalauréat degree, and many held a Master's degree and higher. The age range for these participants was from 19 to 62, with a mean age of 29.9. French was the only language spoken at home for most of the participants. Five of the participants had a parent who spoke Arabic, Spanish or English, but except for one participant who would talk Arabic with her parents, all the others either didn't understand the language of the parent or if they did understand a little, they would answer back in French. So, the main language spoken at home by the participants themselves was French. Most of the participants had traveled to foreign countries for various amounts of time (from several days to several months) and three of them had lived in Anglophone countries (England and Ireland) from 7 months to a year, but because of the purpose of the trip (leisure/adventure or professional, as a French lecturer), these participants were not involved in any formal schooling or language learning in the foreign country. Relevant background information was obtained through a written questionnaire (see Appendix B).

The 18 French learners of English (5 men, 13 women) had arrived in the U.S between the ages of 6 and 46 (with a mean AoA of 24.1) and ranged in age, at the time of interview, between 23 and 61 (with a mean age of 38.3). Their length of residency in the U.S varied from 2 to 30 years (the mean LoR was 11.2). Thirteen participants had received higher education (Master's and PhD's) and 5 of them had some college education leading to a bachelor's degree.

The 13 American learners of French (4 men, 9 women) had arrived in France between the ages of 14 and 46 (with a mean AoA of 23) and ranged in age, at the time of interview, between 24 and 66 (with a mean age of 42.2). Their length of residency in France varied from 2 years to 13 years (the mean LoR was 5.5 years). Eight participants had finished a higher university education (Master's, PhD's, DEA) and 5 participants had a bachelor's degree (with one participant finishing only one year of college).

Relevant background information on all the non-native speakers was obtained through a questionnaire (see Appendix C). Our participants are a small and not fully representative sample of the population of monolingual speakers. Therefore any generalization of findings beyond the present sample must be done with due caution. In addition, since the demographic characteristics of the monolingual groups are not identical (mostly instructors and profesors in their thirties to fifties in the English monolingual group, and mostly university students in their early to mid-twenties), results of inter-group comparisons, presented in Chapters 5 and 6, must likewise be interpreted cautiously. Some relevant background characteristics for all participants are presented in Table 4 (on the next page).

Since the focus of my analysis was on *late* L2 learners at *end-state*, participants were controlled for AOA and LOR. Late L2 acquisition was operationalized as having arrived in the L2 country at or around puberty. Although there is no consensus on the exact cut-off age, I follow Hyltenstam (1992)'s operationalization of late learners as those who arrived in the L2 country between the ages of seven and twelve [4]. End state, on the other hand, was operationalized as having lived in the L2 country, and having used the L2 as their primary language, for four or more years.

[4] One French-English bilingual subject had an AOA of 6 but was still included in the study. Another French-English bilingual who arrived in the U.S. at 3 years old was excluded from the study.

	Age	Sex M/F	AOA	LOR	L2 proficiency*
English monolinguals (20)	49.6 (23-63)	8/12	-	-	-
French monolinguals (19)	29.9 (19-62)	7/12	-	-	-
French-English bilinguals (18)	38.3 (23-61)	5/13	24.1 (6-46)	11.2 (2-30)	6.1 (5.3-7)
English-French bilinguals (13)	42.2 (24-66)	4/9	23 (14-46)	5.5 (2-13)	5.5 (3-7)

Table 4. Background characteristics of all participants

AoA: *Age of arrival in the L2 country*
LoR: *Length of residence in the L2 country, in years*
* *Rating for self-estimated proficiency in all areas combined (reading, writing, speaking, listening, grammar, vocabulary, pronunciation) on a seven-point scale ranging from very poor (1) to native-like (7)*

In the literature, a generous requirement of 10 years or more have been used as standard, recognizing at the same time, that a learner may reside in the L2 country and yet be isolated from contact with the L2 (Birdsong, 2009). In this respect, we do acknowledge that the LOR requirement of 4 years or more in our study may not provide the best representation of learners at end-state. While four years is not an optimally long period of residence, practical considerations for recruitment of participants necessitated this operationalization [5].

Although participants were not controlled for L2 proficiency, subsequent analyses were carried out using L2 proficiency as a group variable. For that particular analysis, the mean self proficiency rating, based on a seven-point scale ranging from very poor (1) to native-like (7), over all areas of proficiency combined (reading, writing, speaking,

[5] One French-English bilingual subject had a LOR of 6 months in the U.S. and was excluded from the study. Another French-English bilingual and 6 of the English-French bilinguals did not fit the criteria of LOR of 4 years. Their LOR ranged between 2-3 years. Although the French-English bilingual was excluded from the study, due to the particular difficulty in recruiting English-French bilinguals with LOR of 4 years, the 6 participants were still included in the analysis.

listening, grammar, vocabulary, pronunciation) was calculated. There were no self-rating means between 1 and 2. Subjects were classified as Intermediate Proficiency (average self-rating between 3 and 5) or High Proficiency (average self-rating between 6 and 7). More information on this categorization will be given in the corresponding section of analysis.

4.2.3 Procedure

4.2.3.1 Linguistic background questionnaire

Participants met with the interviewer individually. They were first asked to fill out a linguistic background questionnaire reflecting their experiences and use of L1 and L2. There were three versions of the questionnaire, two for the monolinguals, in their own languages, either English or French (see Appendices A and B) and the other for bilingual participants, all in English (see Appendix C). The content of the questionnaires were partly based on the online Language History Questionnaire designed by Li, Sepanski, and Shao (2006).

4.2.3.2 Narratives of personal emotional experience

Then, the participants were asked to tell stories of personal experiences where they felt *happy/heureux* and *angry/fâché*, in their native languages for the monolinguals, and both their L1 and L2 for bilinguals. To control for language effect, half of the bilinguals were asked to tell their stories in their L1 first, the other half in their L2 first [6].

[6] Parts of the narratives of one French-English bilingual subject (the positive emotion narrative and parts of the negative emotion narrative) were missing, but we decided to include the rest of the data because of the richness of the emotion vocabulary.

We chose to use first person narratives as linguistic material in my study since they reflect their own emotional experiences, not from imagined experiences from already-made scenarios or someone else's. Regarding the appropriateness of using narratives of personal experiences and as to the genuineness of the emotions expressed in describing experiences that happened to them in the past, Rintell (1990) argues that: "when one tells someone else about an emotional experience, it is common of the teller to mentally "relive" the experience to some extent. The memories evoke real emotion, so that the emotion expressed is genuine" (p. 81-82; quotes from the original author). In fact, even in non-experimental, real life, it is more common to talk about such experiences after the fact than at the moment they are experienced.

The choice of narratives as linguistic material is also justified in that narratives constitute a good source for evaluating the bilinguals' cultural pragmatic competence. According to Rintell (1990), expressing emotions in a different language and understanding the emotions of someone from a different culture/language in culturally appropriate ways is a pragmatic function:

> The extent to which a second language learner is able to use his or her social and linguistic competence to attempt to interpret the affect of target language speakers or to successfully convey his or her own emotions in the target language depends on any number of variables, including the degree of similarity between L1 and L2 with respect to the linguistic strategies available for expression of emotion and the degree of similarity between the native and target cultures, especially cultural attitudes concerning the expression of emotion, in addition to other contextual and individual variables (pp. 76-77).

Because "different speech communities have different "ways of speaking", not just in the narrowly linguistic sense but also in the norms or conventions of linguistic interaction" (Goddard, 2002, p. 37; quotes from the original author), expressing emotions in a second language can reveal the level of pragmatic, communicative competence of the L2 learner. Rintell (1984) also views the expression of emotions as an illocutionary act, a speech act, in the sense that speakers may directly express an emotion (e.g., happiness), while indirectly performing a speech act (e.g., bragging).

We also chose to elicit oral narratives, rather than written narratives, since oral narratives are more representative of spontaneous speech (Pavlenko and Driagina, 2007).

4.2.3.3 Emotion topics

Both positive (*happy/heureux*) and negative (*angry/fâché*) emotional experiences were recounted by the participants. Although the concepts evoked by the words *happy* and *angry* may not match those of *heureux* and *fâché*, a fact that is well evidenced just by the translations available for *happy* in French (i.e., *heureux, joyeux, content, gai*) and *angry* in French (i.e., *fâché,en colère, furieux*), I chose the words in French that seemed to have the most generic meaning among the other possible translations, based on my consultation of French dictionaries. For instance, for the positive emotion in French, *heureux* is the most generic meaning, while *joyeux* is more related to a sense of pleasure, has a specific causal antecedent and is manifested more openly; *content* is more related to a sense of satisfaction and rejoicing; and *gai* is more related to the mood of the person. For the negative emotion in French, *fâché* is the most generic meaning, while *en colère* and *furieux* refer to a more violent, aggressive kind of anger/passion.
The emotion concepts of happiness and anger were chosen, as opposed to other emotion concepts, such as frustration, grief, or pride, because they are considered to be basic, primary emotions, possibly universal across cultures (Ekman and Friesen, 1975; Frijda, Markan, Sato, and Wiers, 1995; Porter and Samovar, 1998; Niedenthal et al., 2004).

With regards to terminology (reviewed in Chapter 3), in this dissertation, the terms emotions and feelings are used interchangeably for concepts of anger, happiness, grief, sadness, for instance. Affect refers to the "conventionalized display of emotions" (Blyth, 1994, p. 130), in other words, how emotions are performed in discourse. By affect, we do not mean to refer to affective variables, such as motivation and anxiety, involved in L2 learning and production (reviewed in Chapter 3).

4.2.4.4 Post-hoc interviews

After the story-telling tasks, participants were encouraged to discuss informally their thoughts on their performance concerning any difficulty or ease with their L1 and L2 in emotional expression, and on a more general level, their "feelings" about expressing emotions in their two languages, based on the last questions of the language background questionnaire: "among the languages you know, which language is the one that you prefer to use to express your emotions? Do you feel you express your emotions better in that language? Why or why not?" and "if there is anything else that you feel is interesting or important about your language background or language use, please comment below".

4.2.4 Measures

In this section, I review the different measures used for the quantitative part of my analysis: what was counted? And how was it counted?

4.2.4.1 Emotion words

In this study, words that were counted as emotion words included:

- (Pure) emotion words per se**:** those that express emotions in two contexts, "feeling X" and "being X". Thus, "sad" and "sadness" are emotion words because "feeling sad" and "being sad" are both rated as expressions of emotion, as opposed to "feeling ignored" (i.e., an emotion) and "being ignored" (i.e., a state of events) (Clore, Ortony and Foss, 1987). In our study however, "being ignored" is also considered an emotion word based on the second category of words listed below.

- Emotion-related words: those that refer to expressions of emotions (e.g., laughter, smiling, crying, tears, frown), bodily states associated with emotions (e.g., strong, tiredness), properties of emotion (e.g., deep, positive, negative, expressive, mixed, disturbed, uncontrollable, turbulent), characteristics of behavior motivated by emotion (e.g., sincerity, giving, helping, sharing, violence), personality traits related to emotion (e.g., outgoingness, gentleness, sensitive, stubbornness, hardness, vulnerability, hyperactive), states of mind associated with emotions (e.g., confusion, uncertainty, arousal, control, conflict, thinking, meditating, alert, reliable, ideal), and cognates and superordinates of emotion (e.g., reactions, responsive, state, communication, expression) (Fehr and Russell, 1984).
- Emotion-laden words: those that do not refer to emotions directly but instead index (e.g., *jerk, loser*) or elicit emotions from the interlocutors (e.g., *cancer, malignancy*). The sub-categories of emotion-laden words include: (a) taboo and swearwords or expletives (e.g., *piss, shit*), (b) insults (e.g., *idiot, creep*), (c) reprimands (e.g., *behave, stop*), (d) endearments (e.g., *darling, honey*), (e) aversive words (e.g., *spider, death*), and (f) interjections (e.g., *Ouch! Wow!*) (Pavlenko, 2008). We do recognize that this category is more fluid and open-ended than the other two included above, thus careful attention was given in choosing a word as a possible emotion-laden word since, as Pavlenko and Driagina (2007) point out, words can gain different emotion connotations and affective functions depending on the context (e.g., *experience* may function as an abstract word in a neutral context and as positively or negatively charged in another, as in the utterance *THAT was an experience!*) and words that are not commonly viewed as emotion-laden may acquire emotional connotations in discourse in certain contexts (e.g., *liberal, elite* may appear as insults or aversive words).
- Interjections: such as *Uh-oh! Ouch!* or *Wow!* that are also manifestations of emotions.

Words with emotional value were counted manually using different corpora of emotion words. For English emotion words, we used the emotion word corpus of Johnson-Laird and Oatley (1989) that includes 590 emotion words, combining words from Fehr and Russell (1984), Clore et al. (1987), Tiller (1988), and an unpublished list devised by Richard Beckwith as part of George Miller's WordNET project. Although Johnson-Laird and Oatley (1989) decided not to include some words (listed in their Appendix 2) that were included in all the three other studies, we chose to include them in my study as they belonged to the categories of emotion-related and emotion-laden words (explained below). We also used the list of words presented in Davitz (1969). For French emotion words, we used Niedenthal et al.'s (2004) corpus from a replicated study of Italian emotion lexicon (Zammuner, 1998), that includes 237 emotion words rated for their emotionness and prototypicality. We also used the list of words presented in Messina, Morais, and Cantraine (1989). While Clore, Ortony and Foss's (1987) study identified emotion words as those that refer to "internal affective states", thus including only pure emotion words, which seems to me too narrow a definition (e.g., "ignored" would not be identified as an emotion word since it does not pass the "feeling X" and "being X" test), Dewaele and Pavlenko's (2002) study identified emotion words as "abstract and metaphorical words that refer to feelings, interests, desires, and judgments" (p. 281), which seems to us too broad a category. They explain that:

> We categorized all words with a value on the dimensions of valence and intensity greater than zero as emotion words […]. Metaphorically, we could say that we ignored all the white (or nonemotional words) and put all the shades of gray up to black in the category of emotion words, while remaining very much aware of the subjective nature of this categorization (p. 281).

Given these perspectives, special attention and scrutiny was given to the selection of emotion words in this study. Because we decided to include not only pure emotion words but also emotion-related and emotion-laden words, we carefully assessed the emotional value of each possible emotion word, especially those that were used in an emotional context in the narratives, but when used in a neutral context, they would not carry any

emotional meaning. For example, the French word *rencontre* and the English word *show* can be used in a neutral context of meeting someone and watching a show, but when used in sentences or expressions as in "*une rencontre amoureuse*" or "*that was a show!",* the words then carry emotional meaning and were counted as emotion words. Other such examples include the expression *black and dark*, the verb *share,* and the French adjective *nouveau*. Although these lemmas do not carry any emotional meaning when used in a neutral context, when given a specific context, they carry on emotional meaning and were counted as emotion words in our corpus. The expression *black and dark* was used by an L2 English bilingual, in relation to President Obama's election, in the sense that she came out of a long, black tunnel where there was no hope: "*It, It, I really felt that I, I was coming out of a, of a really long, um… black or dark, um… place, um… cause I came to the United States in 2000, , and um, and uh, soon after I arrived, uh, President Bush was elected*". This same speaker used the verb *share* in the sense that she was sharing this moment of joy (President Obama's election) with her family and friends. The adjective *nouveau* was used in the context of a new departure, a new season in life, as the speaker moved from the United States to live in France for the first time: "*C'était pour moi un nouveau départ et donc, euh, ouais, c'était, c'était vraiment un grand plaisir."* Because of the context in which these neutral words were used, they were counted as emotion words.

4.2.4.2 Productivity and lexical diversity of emotion words

A distinction was made in the analysis between *word types* (lemmas, e. g., units of meaning) and *word tokens* (lexemes, e. g., lexical items) [7] (footnote is on the next page due to lack of space). The proportion of emotion lemmas in the narratives reflects the richness of the emotion vocabulary of the speakers, i.e., the diversity of emotion words, while the proportion of word tokens reflects the level of emotionality and personal involvement in their speech, i.e., the productivity of emotion words (Dewaele and

Pavlenko, 2002; Dewaele and Pavlenko, 2003). Lexical diversity will be measured through a type-token ratio (TTR), which compares the number of different emotion words (lemmas) with the number of total emotion words (tokens) [8].

With these measures, we will be able to differentiate between a speaker who uses a single lemma 10 times (a total of 10 emotion word tokens) in their narrative and another speaker who uses 10 different emotion lemmas and have the same total of 10 emotion word tokens.

Coding of these words was performed through Excel. Each emotion word was coded for speaker, language group (English monolingual, French monolingual, L2 English bilingual, L2 French bilingual, L1 English bilingual, L1 French bilingual), lemma, token, and categories (either morphosyntactic categories for emotion words, or by categories of stance for stance markers, which will be discussed in the next section).

4.2.4.3 Stance markers

The stance categories used in this study are largely based on the stance categorization in Biber and Finegan (1989) [9].

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[7] The term *emotion words* refers to both emotion lemmas and emotion word tokens.

[8] It has been argued that the simple type/token ratio (TTR) is not accurate for extract lengths that are not identical, and other measures of lexical diversity have been proposed, such as normalizing the absolute numbers to a text length of 1,000 words or using the Uber formula, which is an algebraic transformation of the TTR (see Dewaele and Pavlenko, 2003). However, following Pavlenko and Driagina (2007), I chose to use the TTR for examining lexical diversity. The number of words in monolingual and bilingual narratives will be given as basis of comparison.

[9] In this section of analysis of stance, I restrict my study of stance to the lexical and grammatical devices used to frame a proposition, and not the expressions of affective stance such as "I hate him!", or "You're so stupid!", or "What an absolute jerk!", which directly expresses personal feelings, which have been analyzed in detail in the section of the vocabulary of emotion. Thus, for the purpose of this analysis, I focus on the lexical and grammatical expressions of epistemic stance.

Some features from Precht (2003b) were added as well. Table 5 (on the next page) shows the way that the stance categories are operationalized in this study. In addition, we further distinguish between two semantic subcategories: certainty and doubt evidentiality, as in Biber and Finegan (1989). Under the subcategory of certainty, what we consider 'evidentials' include: nouns [9] (footnote is on next page due to lack of space) (e.g., *the fact that*), adjectives (e.g., *obvious, true*), verbs (e.g., *I conclude, this demonstrates that*), and adverbs (e.g., *assuredly, indeed, without doubt*).

Also included are emphatic particles (labeled as 'intensifiers' or 'amplifiers' in other studies), such as *really, so, very, a lot*, marking intensity, and boosting the force of a proposition (Quirk et al., 1985), indicating its reliability in positive terms (Chafe, 1985). Emphatics signal the presence of certainty towards a proposition and are characteristic of informal, colloquial discourse, marking involvement with the topic (Chafe, 1982). Holmes (1984) also suggests that emphatics can be used to signal solidarity with listener. Modals, which indicate the mood of the proposition, were also classified under the subcategories of certainty and doubt. Among the modals, the predictive modals *will* and *shall* were included under the certainty category (Biber and Finegan, 1989). Under the subcategory of doubt, evidentials included nouns [10] (e.g., *the idea, the possibility*), adjectives (e.g., *alleged, dubious, uncertain*), verbs (e.g., *I assume, this indicates that*), adverbs (e.g., *allegedly, maybe, supposedly*). We also include hedges or "vague language" (Biber and Finegan, 1989), such as *at about, maybe, sort of, kind of,* which signal doubt, uncertainty, hesitation about the reliability of the proposition, a lack of commitment and undecidedness about the statement uttered. Among the modals, the possibility modals *may, might, can, could* and the necessity modals *ought, shall*, and *should* are classified under doubt evidentials. Concerning French modals, *pouvoir, vouloir,* and *devoir* were all considered under doubt evidentials.

[10] Although Biber et al. (1989) excluded nouns because of difficulties in identifying those occurrences with an exclusive stance function, our study included them, following Precht (2003b), and careful consideration was given before a noun was classified as having a stance function.

In this study, stance markers will be analyzed under these two categories (certainty and doubt) and the frequency of stance markers used in emotion narratives and the categories of stance will be analyzed in detail.

EVIDENTIALS: CERTAINTY	Nouns	fact, reason, confirmation, belief
	Adjectives	impossible, obvious, true, sure, certain, clear, realistic, evident, inconceivable, well-known, unquestionably, true, apparent, convinced
	Verbs	I/we conclude, this demonstrates that, I know, I realize, I find, I show, I believe
	Adverbs	actually, assuredly, indeed, without doubt, certainly, definitely, in fact, in reality, without doubt, without question, unmistakably, obviously, of course, clearly, surely
EMPHATICS		a lot, for sure, just, such a, real + ADJ, really, more, most, much, DO + Verb, so + ADJ, so + ADV, too + ADJ, too + ADV
EVIDENTIALS: DOUBT	Nouns	doubt, idea, possibility
	Adjectives	alleged, dubious, uncertain, arguable, doubtful, imaginable, improbably, likely, possible, probable, questionable, unlikely, supposed, unclear, unsure
	Verbs	I/we assume, this indicates that, expect, feel, gather, imagine, sense, I think that, I thought, I guess, I suspect, I wonder if, assumed, expected, presumed, supposed, thought, suggest that, appear, imply, seem, appear, it looks like
	Adverbs	allegedly, supposedly, perhaps, possibly, ideally, formally, likely, officially, technically, hypothetically, theoretically, presumably, possibly, probably
HEDGES	almost, about, kind of, sort of, maybe, more or less, something like, a little, a little bit, almost	
MODALS *		
Predictive Modals	will, would, shall (plus contractions and negation)	
Possibility modals	can, could, may, might (plus contractions and negation)	
Necessity Modals	ought, should, must (plus contractions and negation)	

Table 5. List of stance features investigated

* *For the French corpus, although we do recognize that mood in French can be expressed through certain tenses, only the modals pouvoir, vouloir and devoir were considered in this study.*

4.2.4.4 Discourse features

A more qualitative analysis of the narratives will focus on the discourse strategies of monolingual and bilingual speakers in expressing emotions. The features investigated in my study mostly come from Rintell (1990). In her study, she uses the concept of "indirectness", a characteristic of emotion talk, to refer to the "use of various lexical, syntactic, pragmatic, and discoursal features that allow a speaker to communicate without saying precisely what he or she means" (p. 78). She suggests that there is a social convention that to express one's feelings, especially strong or negative feelings, to another person is either an imposition on that person or causes loss of face to the speaker, or both. Therefore, one should use any linguistic device to minimize or mitigate the expression of those feelings. The level of indirectness depends on several factors: the relationship between the speaker and listener, especially the degree of intimacy (the more intimate the relationship, the more direct the description will be), the type of emotion felt (negative experiences evoking anger, anxiety, fear and sadness are usually only described to intimates, whereas positive experiences evoking happiness are appropriate for any conversation). Other contextual factors influencing the level of directness include the sex of the speaker and listener, the setting of the conversation, and the type of situation that elicited the emotion.

Considering these factors, the task of the second language learner is to know how to manipulate the L2 in order to control the level of directness with which emotion is expressed. Various strategies are available to native speakers and L2 speakers in order to be indirect and minimize the emotions felt, and these strategies will constitute the discourse features analyzed in this study:

- Figurative language: metaphors such as *I died!* or *None of us had the guts to say we did it.* I will add the use of idiomatic expressions, such as *up the wazoo* to this category, that was not analyzed in Rintell (1990)'s study.
- Reported speech: introduced by *I said… He said…*

- Epithets: the use of figurative descriptions of characters, such as *She's an angel* or *He's a jerk.*
- Depersonalization: the speaker begins telling the story in the first person, then, switches from *I* to a hypothetical, general *you* in describing their emotions.
- Detail: a very detailed story communicates emotion strongly, while at the same time allowing the speaker to be indirect. Although the speaker does not literally spell out the emotion felt precisely, the listener emphatically understands the speakers' experience and is able to read between the lines [11]. In fact, this visual image of actually what happened allows the listener to actively participate by placing themselves inside the events and to imagine their own emotion emotional reaction to those events so that the listener can empathize with the speaker's emotional response.

In her study, Rintell (1990) found that none of the features above were found in the learners' narratives. It is our aim here to find out whether the same conclusion holds true or whether late L2 learners at end-state, with extended LOR, can achieve nativelike performance in expressing emotions by using some or all of these strategies.

4.2.5 Data analysis

All narratives were transcribed manually. Emotion words (lemmas and lexemes) were identified and counted, as well as stance markers categorized in Table 5, and the use of these words were analyzed across groups, both quantitatively and as regards lexical choice.

[11] Apart from these five features, Rintell (1990) analyzed two other strategies: minimization, or the use of hedges such as *a little* or *a little bit*, and the use of direct, unmitigated, explicit statements (usually accompanied by emphatics), such as *I was really scared*, and found that these strategies appeared in both native and non-native narratives. As seen in previous sections of this chapter on stance and from the various examples provided throughout Chapter 5 and 6, both strategies were also used in native and learner narratives in our study, and since the use of hedges was already analyzed in detail in this chapter, these two strategies will not be included in this section.

The quantitative analysis focused on the proportion of emotion lemmas and lexemes of emotion words, the distribution of emotion words across morphosyntactic categories, the effect of some of the biographical and linguistic factors on narrative length and use of emotion words, and the use of stance markers in the emotion discourse. With respect to lexical choice, the different stance and discourse features used by the monolinguals and bilinguals were examined.

Because the focus in this study is on ultimate attainment, we argue, following Birdsong (2009), that ultimate attainment does not necessarily imply nativelike proficiency. Rather, it is the end-state of L2 acquisition, whether nativelike or non-nativelike. However, for incidences of nativelike attainment, it is important to consider that, if 5 to 15% of the sample subjects are identified as nativelike, there is a number of other subjects who may have reached near-native levels of proficiency and that proficiency level short of the monolingual natives should not be neglected.

Chapter 5: Results for Emotion Words

With narrative samples of discourses of emotions from monolingual and bilingual speakers, this chapter provides a thorough analysis of the emotion vocabulary of native speakers of English and French, as well as that of L2 learners of English and L2 learners of French. Statistical analyses were also performed, including independent sample t-tests, analyses of variance (ANOVA), and chi-square procedures. Effects of independent variables such as L1, L2 proficiency, amount of L2 use, degree of L2 identification, and degree of L2 perception on narrative length and proportion of emotion word tokens were investigated for each corpus. Effects of these variables were also analyzed for the distribution of emotion words across morphosyntactic categories. Both quantitative and qualitative analyses are provided for the monolingual and bilingual corpora, in order to look into cases of nativelike performance in the use of emotion words.

5.1 SAMPLE EMOTION VOCABULARY IN NARRATIVES

The four narrative extracts below illustrate how monolingual native speakers of English and French and bilingual speakers, both American learners of French and French learners of English, express emotions through narratives. Emotion words, that is, words naming, referring to, or related to particular emotions, are marked in italics.

5.1.1 Narrative extract of an English monolingual for the emotion 'happy'

Giving birth to a child:
I would say, I would say, the *happiest* moment, one of the *happiest* moments of my life, if not the *happiest*, was the day my son was born…
Uh… of course, it, it, it was probably the only time in my life where I, I *felt ecstatically happy* to be in *pain* and go to a hospital.
Uum, when-- I'm gonna describe the actual moment when he was born.
When he was born and I heard him *crying*, I was just, all the *pain* that I had been experiencing for about ten hours *completely* disappeared.

And, although I'd been *exhausted* and given oxygen, suddenly, I was a motor mouth, I couldn't stop talking.
And, I also *felt* a *tremendous* amount of *pride*, because in, throughout ten hours of labor, I *needed* so many drugs and I'd taken so many drugs, and just, just hearing him *cry* and then see his, his *sweet* face, *trying* to figure out who he looked like, I just had this wave of *love* and *accomplishment*, like this was something I had done by myself, even though, you know, my husband was *slightly* involved, this was, this was an *amazing* thing that I had done, that we had done *together*.
And my son was just, I remember, as soon as the nurse put him in my arms, he stopped *crying* 'cause he'd been *crying*, you know, when they do the little test when a baby is born, to make *sure* they have all their fingers and toes, and that they're breathing *normally*, and as soon as they swaddled him and put him in my arms, he stopped *crying* instantly.

5.1.2 Narrative extract of an L2 English bilingual for the emotion 'happy'

Celebrating the presidential election:
So what did I feel? I felt, um… uh… well, it was something that I was *hoping*, uh, for so much that, you know, uh, uh, uh, um… it was , it was like a, like a, like I was really *sharing* this moment, because I had been involved in, uh, you know, in the campaign, and that kind of thing.
So, I really, uh, I really *felt*, uh, full of, um… full of *hope*, really (laughs), to, uh, use a term that had been used a lot during the campaign.
It, it, I really *felt* that I, I was coming out of a, of a really *long*, um… *black* or *dark*, um… place, um… cause I came to the United States in 2000, and, um, and, uh, soon after I arrived, uh, President Bush was elected.
And I, you know, so, it had been eight years of really, um, uh, um, *sad* times for me.
Um, and I was, I *felt* extremely, uh, um, *happy, hopeful, liberated* almost, by this election.
Um… I, I was, I was *proud* to be part of it. I was *proud* to be there. It had, um, uh, really, um, uh, um, gave me the, the *feeling* that maybe I could *belong* to this country, and I, I, I didn't have that *sense* of *belonging* before.
I have to say that I kind of *lost* it since, but, uh, at that particular moment, I *felt* I was part of something extremely *important*, extremely uh, uh, um…*strong* and, uh, I was really, I was really *proud* of what this country had done.

5.1.3 Narrative extract of a French monolingual for the emotion 'fâché/en colère'

Dealing with a bad customer at work and with the lack of support from colleagues:
Euh…

Oui, alors, j'ai eu un p'tit *problème* à l'acceuil à mon travail avec un, eum, euh, un usager qui était un peu *malade* (rires) dans sa tête et, euh, qui a commencé à être *agressif*, euh, *bizarre*, euh vraiment dès le départ, j'ai vu qu'il était *bizarre*, voilà.
Et, et c'est pas ça qui est *vexant* hein, je… quelqu'un de *bizarre*, ça arrive hein, puis, j'ai *vite* oublié ça.
Là où j'étais hyper *déçue*, c'est mes collègues, euh, qui, euh, m'ont pas *soutenue*, qui ont plutôt *rigolé* quoi, alors qu'il commençait à être *agressif* et que chuis partie parce que *j'avais peur* de me prendre un – chais pas, je me suis dit « si i me fout un **'***gnon*… ».
Enfin, je veux pas être *rose*, quoi et (rires).
Donc, j'ai pris mes affaires et *je me suis barrée* parce que le gars voulait pas partir, en fait.
Et, euh, et, ben, je, je pensais pas que ça ferait *rire* tous mes collègues, mais apparemment, c'était très *drôle* (rires), donc voilà.
J'ai trouvé qu'y avait un *manque* de *solidarité*, hein, donc j'ai pas été, j'ai pas été *ravie*.
Du coup, *j'en voulais* pas à tout le monde, enfin, à plusieurs personnes, plutôt des gars d'ailleurs, qui, qui avaient tendance à me *comprendre*, c'qui m'est arrivé en disant « oh, c'est pas *drôle*, vous » ou chais pas, et les garçons se disent « hé ho ho ho ! T'en verras d'autres, hein ! » ou…
Bon, enfin, bref, et moi, je m'étais, j'étais partie vers les magasins parce que je me suis dit « si je me chope un **'***gnon*.. », y avait deux gars, euh, qui pourront (rires) me *défendre*.
Et chais pas, je savais pas du tout que ça allait faire *rire*, mais enfin, j'ai pas trouvé ça *spécialement drôle.*
'Fin, bref, et, euh, voilà.
Donc du coup, j'étais assez *mécontente*, euh, j'aurais pas forcément dit « bonjour » pendant quelques jours, euh, voilà.
Euh, et puis, j'ai trouvé qu'il y avait un *terrible manque de solidarité* entre collègues.
Pour moi, c'est un peu *raide*, mais bon.
On est quand même une équipe hein, à la base.
'Fin, puis, après, c'est pas *flagrant* mais bon, c'est (rires), y a un *problème*.
'Fin chais pas.

5.1.4 Narrative extract of an L2 French bilingual for the emotion 'heureux'

Moving to Montpellier, France:
Et donc oui, c'était *grisant* comme *expérience* parce que, euh, c'était pour moi un *nouveau* départ et donc, euh, ouais, c'était, c'était vraiment un *grand plaisir* et j'avais *l'impression* de, de, de, de me payer un *grand cadeau* (rires), quelque chose de *nouveau*, oui, oui, c'était, j'étais vraiment *ravie*.
[Interviewer : vous étiez heureuse ? dans quel sens ?]
Euh, oui, une *satisfaction*, là, encore une fois, une sorte *d'euphorie*, eum, euh...
La *sensation, l'impression* d'avoir *abouti* à quelque chose, euh, la fin d'un projet, euh...

Et puis la *sensation* un peu *grisante* de prendre des *risques* aussi (rires), d'*innover* et de me dire « bon, ben, je ne sais pas comment ça va être mais je pense que ça va être *bien*. »
L'excitation, l'anticipation de, de, de pleins de choses *nouvelles* et, et, tout *bien*, oui.
Je *me sentais* comme ça et d'ailleurs ce, cette, ce *sentiment* là a, a duré depuis.

5.2 ANALYSIS PROCEDURES

We analyzed the data quantitatively using parametric and non-parametric tests, including independent sample *t*-tests, analyses of variance (ANOVA), chi-square procedures, and Scheffé post-hoc comparisons. For all statistical analyses, we used $\alpha = .05$ as criterion for significance. To analyse the emotion vocabulary of native speakers and L2 learners, we will first discuss the influence of independent variables (native language, L2 proficiency, amount of L2 use, degree of L2 identification, degree of L2 perception) on narrative length and the proportion of emotion word tokens in each corpus. Then, we examine the influence of these variables on the distribution of emotion words across morphosyntactic categories. As Pavlenko and Driagina (2007) point out, these dependent variables are well established in that narrative length has been used in previous research on productivity (Dewaele & Pavlenko, 2003) and proportions of morphosyntactic categories have been analyzed in Dewaele (1996, 2001).

For both monolingual and bilingual corpora, we analyzed the proportion of emotion lemmas/tokens, as well as narrative length, the distribution of emotion lemmas across morphosyntactic categories, and lexical choice. As noted in Chapter 4, our participants are a small and not fully representative sample of the population of monolingual speakers. Therefore any generalization of findings beyond the present sample must be done with due caution. In addition, since the demographic characteristics of the monolingual groups are not identical (mostly instructors and profesors in their thirties to fifties in the English monolingual group, and mostly university students in their early to mid-twenties), results of inter-group comparisons must likewise be interpreted cautiously.

5.3 RESULTS OF THE MONOLINGUAL CORPORA

5.3.1 Quantitative analysis

Table 6 summarizes the comparison of the English and French monolingual corpora in terms of size and lexical richness of emotion vocabulary. In terms of narrative length (for both positive and negative emotion narratives combined), the English monolinguals produced longer extracts (M = 1,326.35 words) than the French monolinguals (M = 933.5 words), but the difference was not significant (t = 1.35, df = 37, p = .09).

Speakers	Narratives	Number of Words	Number of Emotion Lemmas*	Number of Emotion Word Tokens	Lexical Richness of the Emotion Lexicon (TTR)
Eng Mono (20)	Positive	12,204 M = 610.2	330 M = 29.6 SD = 14.4	960 M = 48 SD = 26.4	0.34
	Negative	14,326 M = 716.3	429 M = 35.6 SD = 19.7	1,094 M = 54.7 SD = 39.4	0.39
	Total **	**26,530** **M = 1,326.5**	**651** **M = 60.1** **SD = 26.8**	**2,054** **M = 102.5** **SD = 60.1**	**0.32**
Fren Mono (19)	Positive	7,744 M = 407.6	277 M = 23.5 SD = 12.9	681 M = 35.8 SD = 23.7	0.41
	Negative	9,993 M = 525.9	403 M = 30.7 SD = 16.8	809 M = 42.6 SD = 28.1	0.50
	Total	**17,737** **M = 933.5**	**581** **M = 52.4** **SD = 25.8**	**1,490** **M = 78.4** **SD = 49.5**	**0.39**

Table 6. Size and lexical richness in the English and French monolingual corpora

* *Each number corresponds to the number of different emotion lemmas used by English monolinguals in the positive emotion narratives (given that a particular lemma may have been used several times within subjects and between subjects). The mean, however, corresponds to that of all emotion lemmas produced by all English monolingual speakers in the positive emotion narratives, including those that have been used repeatedly within and between subjects.*

** *The total corresponds to both positive and negative emotion narratives combined.*

When narratives of positive emotion and negative emotion were analyzed separately for the monolingual corpora, significant differences were found in the positive emotion narratives (t = 2.16, df = 36, p = .04), with English monolinguals producing longer extracts (M = 610.2 words) than the French monolinguals (M = 407.6 words). In the negative emotion narratives, although the English monolinguals produced longer extracts (M = 716.3 words) than the French group (M = 525.9 words), the difference was not significant (t = 1.30, df = 36, p = .20). For both monolingual corpora, narratives were longer for the negative emotion compared to the positive emotion (M = 716.3 words vs. M = 610.2 words for the English monolinguals, M = 525.9 words vs. M = 407.6 words for the French monolinguals), but the differences were not significant (t = -1.30, df = 19, p = .21, and t = -2.04, df = 18, p = .05 for the English and French monolinguals, respectively).

In terms of emotion vocabulary, the overall number of emotion word tokens (in both positive and negative narratives combined) was higher in the English narratives than in the French ones (2,054 vs. 1,490), but there were no significant differences between English and French monolinguals in terms of the proportion of emotion tokens (t = 1.37, df = 36, p = .18). In separate analyses of positive and negative emotion narratives, the same pattern was found: although English monolinguals produced more emotion word tokens in both positive and negative emotion narratives (960 and 1,094, respectively) than French monolinguals (681 and 809, respectively), the difference was not significant (t = 1.52, df = 37, p = .37 for the positive emotion narratives; t = 1.11, df = 34, p = .27). Once again, for both monolingual groups, the number of emotion word tokens was higher in the negative emotion narratives than in the positive emotion narratives (1,094 vs. 960 for the English monolinguals, and 809 vs. 681 for the French monolinguals), but the difference was not significant in either group (t = -1.01, df = 19, p = .32 for the English monolinguals, t = -1.87, df = 18, p = .08 for the French monolinguals).

The total lexical richness of the emotion lexicon, measured through type/token ratio, was higher in the French corpus (0.39 vs. 0.32), although English speakers used a wider variety of emotion lemmas than French speakers (651 vs. 581). This is true for positive and negative emotion narratives analyzed separately. In both positive and negative emotion narratives, the type/token ratios for French speakers were higher than those of English speakers (0.41 vs. 0.34 for positive emotion, 0.50 vs. 0.39 for negative emotion), although the latter group consistently used a wider variety of emotion lemmas than the French group (330 vs. 277 for positive emotion, 429 vs. 403 for negative emotion).

Regarding the distribution of emotion words across morphosyntactic categories, Table 7 summarizes the monolingual group results, and Figure 5 illustrates the results graphically.

Speakers	**Narratives**	**Nouns**	**Adjectives**	**Verbs**	**Adverbs**	**Interjections**
Eng Mono (20)	Positive	220 (22.9%)	453 (47.2%)	207 (21.6%)	55 (5.7%)	25 (2.6%)
	Negative	249 (22.8%)	434 (39.7%)	359 (32.8%)	37 (3.4%)	15 (1.4%)
	Total	**468 (22.8%)**	**888 (43.2%)**	**566 (27.6%)**	**92 (4.5%)**	**40 (1.9%)**
Fren Mono (19)	Positive	219 (32.2%)	196 (28.8%)	189 (27.8%)	72 (10.6%)	5 (0.7%)
	Negative	247 (30.5%)	213 (26.3%)	277 (34.2%)	69 (8.5%)	3 (0.4%)
	Total	**466 (31.3%)**	**409 (27.4%)**	**466 (31.3%)**	**141 (9.5%)**	**8 (0.5%)**

Table 7. Morphosyntactic categories of the emotion vocabulary in the English and French monolingual corpora

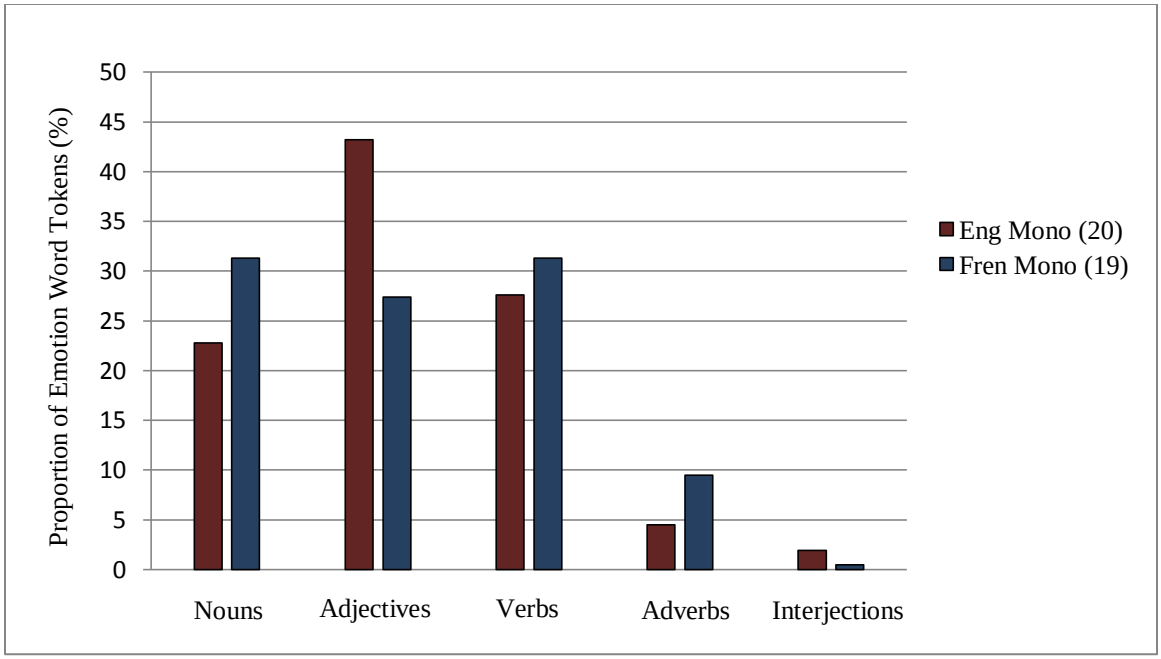

Figure 5. Comparison of morphosyntactic categories for English and French monolinguals (for both types of positive and negative emotion narratives combined)

We can see that the speakers of English and French differed in the preferred pattern of emotion coding in their narratives. English speakers favored emotion adjectives (43.2% of all emotion word tokens), whereas French speakers favored both emotion nouns and verbs (both 31.3% of all emotion word tokens). The pattern of the English speakers favoring adjectives is consistent with results from previous research (Wierzbicka, 1992; Dewaele & Pavelenko, 2002; Pavlenko & Driagina, 2007). Hypothesis 4 was confirmed.

In order to see whether the distribution for each monolingual group was a result of chance or if there really was a pattern of preference, we used a non-parametric procedure and performed the chi-square test. For both groups, the distribution of morphosyntactic categories was not equal and the difference in the frequency of use of these categories was highly significant ($\chi^2 = 1{,}203$, $df = 4$, $p < .05$ for English monolinguals, $\chi^2 = 595.6$, $df = 4$, $p < .05$ for French monolinguals). These patterns also held within the subcorpora of

positive and negative emotion narratives. In the positive emotion narratives, English monolinguals still favored adjectives (47.2% of all emotion word tokens), whereas French speakers still favored nouns (32.2% of all emotion word tokens). In the negative emotion narratives, the English group preferred adjectives (39.7%), whereas the French group preferred the verbal pattern (34.2%). The semantic interpretation of this distribution will be discussed in the following qualitative analysis section. The adverb category only constituted a small portion of the morphosyntactic distribution of emotion words but the frequency of use was higher in the French corpus (9.5%) than in the English corpus (4.5%). Lastly, an interesting aspect about the use of interjections, which was minimal in both groups (1.9% in the English group vs. 0.5% in the French group) is the fact that they were used more in positive emotion narratives than in negative emotion narratives, with a greater difference in the English group: 25 vs. 15 interjections, respectively, in the English group, compared to 5 vs. 3 in the French group.

5.3.2 Analysis of lexical choice

We also analyzed the corpora in terms of the actual lexical choices the speakers made (see Appendices 4 and 5 for lists of emotion lemmas produced by English and French monolinguals). Analysis of the English monolingual corpus revealed that the words that were used most were *feeling, happy, want, well*, and *wow!,* which were used 240 times, in both positive and negative emotion narratives combined, accounting for 11.7% of the emotion word corpus (see Appendix 4). Other words that appeared at least 8 times in the corpus were (in decreasing frequency for each morphosyntactic category):

- Nouns: *experience, anger, birth, pregnancy, sense, life, happiness, joy, mind, pain, problem,*
- Adjectives: *angry, good/better/best, bad/worse/worst, mad, hard, frustrated/frustrating, cute, exciting, normal, right, easy,*

disappointed/disappointing, wonderful, beautiful, relieved, upset, annoying/annoyed, nervous, nice,

- Verbs*: feel, need, cry, try, understand, help, hope, like, avoid, hurt, scream*,
- Adverbs: *well, together*.

These words (combined with those that were most frequently used) accounted for 47.3% of all emotion word tokens in the corpus.

When positive and negative emotion narratives were considered separately, the words that were used most in the positive emotion narratives were *feeling, happy, want* and *well* (158 tokens, 16.5% of the positive narrative emotion word corpus) and those that were used most in the negative emotion narratives were *anger, angry*, and *want* (143 tokens, 13.1% of the negative narrative emotion word corpus). Other words that appeared at least 8 times in the positive emotion narrative corpus were (in decreasing order of frequency for each morphosyntactic category):

- Nouns: *pregnancy, experience, happiness, joy,*
- Adjectives*: happy, good/better/best, cute, exciting, normal, relieved, right, wonderful, hard,*
- Verbs: *want, feel, cry, need, help, try*.

These words, combined with those that were most frequently used in the positive narratives, accounted for 37.3% of all emotion word tokens in the positive emotion narratives. In the negative emotion narratives, other words that appeared at least 8 times were (in decreasing order of frequency for each morphosyntactic category):

- Nouns: *birth, experience, feeling,*
- Adjectives*: bad/worse/worst, good/better/best, mad, frustrating/frustrated, hard, disappointing/disappointed, upset/upsetting,*
- Verbs*: feel, need, try, understand, avoid, like, scream, hurt*.

These words, combined with those that were most frequently used in the negative narratives, accounted for 35.1% of all emotion word tokens in the negative emotion narratives.

Analysis of the French monolingual corpus revealed that the most frequently used words were *vie, heureux, aimer, bien*, and *ah!*, which were used 144 times, in both positive and negative emotion narratives combined, accounting for 9.7% of the emotion corpus (see Appendix 5). Other words that appeared at least 8 times in the corpus were (in decreasing frequency for each morphosyntactic category):

- Nouns : *problème, colère, bonheur, envie, fierté, voyage, peur, baccalauréat/bac, droit, joie, justice, heureux, content,*
- Adjectives *: bon/meilleur, en colère, difficile, fort, mauvais/pire, triste,*
- Verbs *: aimer, énerver, être fâché, pleurer, ressentir, se marier, se sentir, être énervé, comprendre, partager, exprimer, fâcher, réussir,*
- Adverbs *: bien, surtout, mal, complètement*.

These words (combined with those that were most frequently used) accounted for 36% of all emotion word tokens in the corpus.

When positive and negative emotion narratives were considered separately, the words that were used most in the positive emotion narratives were *vie, heureux, aimer,* and *bien* (107 tokens, 15.7% of the positive narrative emotion word corpus) and those that were used most in the negative emotion narratives were *colère, en colère, énerver, être fâché,* and *bien* (78 tokens, 9.6% of the negative narrative emotion word corpus). Other words that appeared at least 8 times in the positive emotion narrative corpus were (in decreasing frequency for each morphosyntactic category):

- Nouns: *bonheur, fierté, voyage, envie, joie,*
- Adjectives *: content,*

- Verbs *: se marier, ressentir, partager, pleurer,*
- Adverbs *: surtout*.

These words, combined with those that were most frequently used in the positive narratives, accounted for 33.3% of all emotion word tokens in the positive emotion narratives. In the negative emotion narratives, other words that appeared at least 8 times were (in decreasing frequency for each morphosyntactic category):

- Nouns: *problème, justice, vie, bon/meilleur,*
- Adjectives*: difficile, mauvais/pire,*
- Verbs *: être fâché, être énervé, comprendre, fâcher,*
- Adverbs *: mal.*

These words, combined with those that were most frequently used in the negative narratives, accounted for 21.8% of all emotion word tokens in the negative emotion narratives.

Considering the emotion lemmas in each monolingual group, we found that in the English corpus, pregnancy and birth constituted the main antecedents (i.e., cause or source) of positive and negative emotions, whereas in the French corpus, themes of traveling and getting married were recurrent as producing positive emotion. Other antecedents, in the English corpus, included getting an award, all the first experiences (getting the first puppy, the first pregnancy, the first grand-child, the first trip to Europe), finishing a degree, getting a job, and a favorite football team winning at a major game, for positive emotion. Negative emotion antecedents included a child being bullied, having a bad boyfriend, having a significant other cheating, having a bad birth, an argument with a husband or child, dealing with a car accident, dealing with a landlord in court, a hard work not recognized, frustration over a roommate, loss of friendship, disappointment with a boss, and disagreement with a colleague, among others.

In the French corpus, antecedents of positive emotion included passing the baccalauréat exam and being admitted to college, the birth of a child, getting a degree, meeting a favorite celebrity, and experience of love at first sight. A friend's betrayal, an argument with a friend, being hurt by a sibling, pressure from a boss or teacher, dealing with a bad customer at work, getting a bad grade, being treated as racist, and illness of a family member, all produced negative emotion.

With regards to collocations, English monolinguals seem to associate emotion with more neutral nouns, such as *feeling* and *experience* (48 tokens in all English narratives) and verbs, such as *feel* (48 tokens in all English narratives), as in Example 1:

Example 1

(a) I *felt* ecstatically happy…
(b) It was just an amazing *feeling*…
(c) It was a nice *experience* to give them that, to give them their first grand-daughter.
(d) I just *felt* this, this constant feeling of persecution.
(e) It was…unbelievably tense, and, and, and angry *experience*…
(f) And maybe that's part of the reason why I also had a feeling of *frustration*…

Thus, *happiness* is related to a good experience (with the adjective *good*, being the second most frequent lemma in the positive emotion narratives, with 33 tokens, after *happy*, 89 tokens), and *anger* is related to a bad experience (with the adjective *bad*, being the second most frequent lemma in the negative emotion narratives, with 28 tokens, after *angry*, 68 tokens).

For the French monolinguals, on the other hand, any type of emotion (*bonheur, colère, fierté, joie*), seems to be associated with notions of *vie* (33 tokens in all French narratives) and *bien-être* (3 tokens in the positive narratives), i.e., as something very profound and internal to the individual, as in Example 2:

Example 2

(a) Et c'est vrai qu'après, ma *vie*, euh, enfin, je pense que ma *vie* a plus été la même.
(b) C'est vraiment un autre contact humain et, euh, ouais, c'est un *bien-être*, voilà, plus que du bonheur et cetera. C'est vraiment un *bien-être*, quoi.

This is more evident when we consider some of the lemmas in the negative emotion narratives, especially, *problème*, *faute, question/questionnement, droit*, and *justice*. A negative emotion of anger is considered as abnormal, a problem, usually having to do with some kind of injustice, a questioning of the self or a situation, or a violation of a right, as in Example 3:

Example 3

(a) C'était beaucoup de colère, de voir que quelque part, s'il en était là, c'était en partie de sa *faute*.
(b) C'est un *problème* vraiment anodin, c'qui m'est arrivé.
(c) Y a un *questionnement* sur soi… Y a tout c'qui est sur soi-même et puis y a un *questionnement* sur le, le bac lui-même (laughs), l'éducation en France.
(d) Pace qu'après, je me posais beaucoup de *questions*.
(e) Y a le videur du café qui m'a dit que j'avais pas le *droit* d'être, d'être là…
(f) Je me disais aussi… « Comment ça marche justement la *justice* ? On peut pas avoir confiance en la *justice* des hommes. Comment ça marche ? »

The emotion of anger is also frequently associated with sadness and disappointment, as in Example 4:

Example 4

(a) Là où j'étais hyper *déçue*, c'est mes collègues, euh, qui, euh, m'ont pas soutenue…
(b) C'était plutôt de la *déception*, beaucoup de *déception*, et la colère envers moi-même aussi.
(c) Ça m'a vraiment retourné. 'Fin, j'étais vraiment *triste*.

In terms of the distribution of morphosyntactic categories of emotion words, we saw that English monolinguals preferred the adjectival pattern, and this pattern appeared most frequently in the corpus in combination with the copula verb *to be* and the change-of-state verb *to get,* the emotion verb *to feel*, and with the structure "*it made me X*", as in Example 5:

Example 5

(a) I *was* scared, too.
(b) We *were* happy, but mainly relieved.
(c) …when I *get* angry in relation to my son, I sort of lose all sense of perspective and reasoning….
(d) I *felt* very angry and puzzled as to why this man was acting that way…
(e) An event that *made me* happy was when I graduated from culinary school.
(f) …that *made me* really, really angry.

This preference of adjectives over other categories reflects, as previously noted by Wierzbicka (1992, 1994, 1999) and Pavlenko (2002), the fact that for English speakers, emotions are considered as passive states, something unintended, caused by external and/or past causes. With the copula constructions and the structure "it made me X", the experiencer/speaker only has a passive role in the emotional experience.

French monolinguals, on the other hand, used a greater proportion of emotion nouns and verbs, such as *ressentir, partager, pleurer, fâcher, être fâché, énerver, être énervé,* and *comprendre*, as in Example 6:

Example 6

(a) J'ai *ressenti* beaucoup de *soulagement* déjà, euh, beaucoup de *joie*, euh, quand même de la *fierté* aussi…
(b) Ah oui, le *bonheur* intégral, total.
(c) …de *l'abattement*, euh, ouais. C'est la *sensation* d'être dans une situation où, où chuis totalement victime et impuissante.
(d) Je sais pas, plutôt de *l'indignation*, en fait.
(e) J'ai *rassuré* tout le monde…

(f) Au bout de trois semaines, j'ai…j'ai *craqué* quoi, et voilà, et c'est la perte d'une amie.
(g) C'est quelque chose qui *m'énerve* vraiment, vraiment.
(h) Je *m'énerve* en général tout seul, chez moi.
(i) J'étais *en colère*. J'étais vraiment *fâché*.

By the use of nouns and verbs, French speakers see emotions as inner states and activities in which they are engaged in more or less voluntarily, as active experiencers. Emotion nouns, such as *le bonheur, l'abattement, l'indignation*, may reflect more a state of being as opposed to the process of undergoing a state, reflected by the use of adjectives, whereas emotion verbs suggest that emotions are seen more as actions.

As a summary, we see that the lemmas *feeling, happy, want, well,* and *wow!* were the most frequently used in the English monolingual corpus and *vie, heurex, aimer, bien,* and *ah!* were the most used in the French monolingual corpus. While English native speakers related emotions as feelings and experiences (with happy being associated with a good experience, and angry with a bad experience), French native speakers associated any type of emotion to *vie* and a sense of *bien-être*. Anger was also associated with sadness and disappointment. In terms of morphosyntactic categories, English native speakers favored emotion adjectives, seeing emotions as passive states, whereas French native speakers preferred nouns and verbs, implying a more active attitude towards the experience.

To sum up, from both quantitative and qualitative analyses, we identified five important aspects when comparing the two monolingual corpora:

- They did not differ in terms of mean narrative length: although English monolinguals produced longer narratives than French monolinguals, the difference was only significant in the positive emotion narratives.

- They did not differ in terms of the number of emotion word tokens: although English monolinguals produced more emotion word tokens in their narratives than French monolinguals, the difference was not significant.
- They did differ in terms of lexical richness: French speakers displayed higher lexical richness of emotion vocabulary than English speakers.
- They differed in the distribution of emotion terms across morphosyntactic categories: English speakers favored an adjectival pattern of emotion descriptions, whereas French speakers preferred a nominal/verbal pattern.
- The two groups differed in terms of lexical choices: English speakers favored emotion adjectives, combined with copula verbs and the structure *NP made me AP*, reflecting a passive experience/feeling, while French speakers described emotions as activities.

5.4 RESULTS OF THE BILINGUAL/LEARNER CORPORA

5.4.1 Quantitative analysis

Table 8 (on the next page) summarizes the comparison of the L2 French bilingual (i.e., American learners of French) and L2 English bilingual (i.e., French learners of English) corpora in terms of size and lexical richness of emotion vocabulary.

In terms of narrative length (for both positive and negative emotion narratives combined), both groups of bilinguals produced shorter narratives than the monolinguals, with L2 English bilinguals producing an average of 667.7 words, L2 French bilinguals an average of 693.4 words, compared to the English monolinguals producing an average of 1,326.5 and the French monolinguals an average of 933.5 words. ANOVAs revealed a main effect for group (English monolinguals, French monolinguals, L2 English bilinguals, L2 French bilinguals) with respect to narrative length for the total narratives (positive and negative emotion narratives combined) ($F(3, 66) = 4.88$, $p = .003$), and also for positive emotion narratives ($F(3, 66) = 6.61$, $p = .0006$), as well as negative emotion

narratives ($F(3, 66) = 2.86$, $p = .04$) separately. Scheffé post-hoc group-wise comparisons show significant differences between the English monolingual group and the L2 English binlingual group ($p = .01$) and the L2 French bilingual group ($p = .04$) for total narratives.

Speakers	**Narratives**	**Number of Words**	**Number of Emotion Lemmas**	**Number of Emotion Word Tokens**	**Lexical Richness of the Emotion Lexicon (TTR)**
Eng Mono (20)	Positive	12,204 M = 610.2	330 M = 29.6 SD = 14.4	960 M = 48 SD = 26.4	0.34
	Negative	14,326 M = 716.3	429 M = 35.6 SD = 19.7	1,094 M = 54.7 SD = 39.4	0.39
	Total	**26,530** **M = 1,326.5**	**651** **M = 60.1** **SD = 26.8**	**2,054** **M = 102.5** **SD = 60.1**	**0.32**
L2 Eng Biling (18)	Positive	5,054 M = 297.3	225 M = 18.6 SD = 8.2	453 M = 25.2 SD = 11.3	0.50
	Negative	6,964 M = 386.9	283 M = 23.1 SD = 16.1	587 M = 32.6 SD = 25.3	0.48
	Total	**12,018** **M = 667.7**	**448** **M = 39.1** **SD = 22.2**	**1,040** **M = 57.8** **SD = 34**	**0.43**
Fren Mono (19)	Positive	7,744 M = 407.6	277 M = 23.5 SD = 12.9	681 M = 35.8 SD = 23.7	0.41
	Negative	9,993 M = 525.9	403 M = 30.7 SD = 16.8	809 M = 42.6 SD = 28.1	0.50
	Total	**17,737** **M = 933.5**	**581** **M = 52.4** **SD = 25.8**	**1,490** **M = 78.4** **SD = 49.5**	**0.39**
L2 Fren Biling (13)	Positive	3,889 M = 299.2	143 M = 14.6 SD = 5.9	245 M = 18.8 SD = 7.9	0.58
	Negative	5,125 M = 394.2	175 M = 17.8 SD = 12.4	323 M = 24.8 SD = 18.7	0.54
	Total	**9,014** **M = 693.4**	**284** **M = 31** **SD = 16.1**	**568** **M = 43.7** **SD = 24.4**	**0.5**

Table 8. Comparison of size and lexical richness between monolinguals and bilinguals

For the positive emotion narratives, significant differences were found between the English monolingual group and the L2 English bilingual group (p = .003) and the L2 French bilingual group (p = .009). For the negative emotion narratives, differences were found between the English monolingual group and the L2 English bilingual group but they were not significant (p = .09).

Thus, Hypothesis 1 was confirmed in that monolinguals did produce longer narratives than bilinguals. However, with regards to nativelikeness, 2 L2 English bilinguals and 4 L2 French bilinguals, i.e., 6 out of the total 31 bilinguals (19.4%), performed nativelike or near-nativelike, with narrative lengths similar to or longer than those of monolinguals of the respective languages. Whereas the mean narrative length for English monolinguals was 1,326.5 words, the mean narrative lengths of these bilinguals ranged from 1,267 to 1,713 words. The mean narrative length for French bilinguals was 933.5 words and the mean narrative lengths of nativelike L2 French bilinguals ranged from 931 to 1515 words.

With regards to the proportion of emotion word tokens, the bilinguals' total narratives contained a smaller number of emotion word tokens than the monolinguals' total narratives. L2 English bilinguals produced an average of 57.8 emotion word tokens, compared to 102.5 words by English monolinguals. L2 French bilinguals produced an average of 43.7 emotion word tokens, compared to 78.4 words by French monolinguals. An ANOVA revealed a significant main effect of group for the proportion of emotion tokens ($F(3, 66) = 5.24$, p = .0003), such that the L2 learners did use fewer emotion words than the monolingual speakers. This pattern was held consistently for positive emotion narratives ($F(3, 66) = 7.01$, p = .0004) and negative emotion narratives ($F(3, 66) = 3.15$, p = .03). Subsequent Scheffé post-hoc comparisons showed that in positive and negative narratives combined, significant differences were found between the English monolingual group and the L2 English bilingual group (p = .04) and the L2 French group (p = .008). Hypothesis 2 was confirmed for the proportion of emotion word tokens: monolinguals used more emotion word tokens than bilinguals.

With respect to nativelikeness, 2 L2 English bilinguals and 2 L2 French bilinguals, i.e., 4 out of 31 bilinguals (12.9%) performed in the native range, with the proportion of emotion word tokens similar to or greater than that of monolinguals of the respective languages. Whereas the mean emotion word tokens for English monolinguals was 102.5 words, nativelike L2 English used between 131 and 144 tokens. The mean emotion word tokens for French monolinguals was 78.4 tokens and the nativelike L2 French bilinguals used between 89 and 90 tokens.

Despite the smaller number of emotion word tokens in the bilinguals' narratives, the lexical richness of emotion vocabulary in the bilingual corpus was higher than that in the monolingual corpus: 0.43 vs. 0.32 for L2 English bilinguals and English monolinguals, respectively, and 0.5 vs. 0.39 for L2 French bilinguals and French monolinguals, respectively. These results suggest that the bilinguals had a rich variety of emotion words at their disposal, and Hypothesis 2 was not confirmed for lexical richness.

Table 9 summarizes the results in terms of the influence of L2 proficiency [12]. Although for bilinguals in both language groups generally, highly proficient L2 bilinguals did produce longer narratives (except for the L2 French group in which intermediate level speakers had a higher average of number of words) and used more emotion word tokens than intermediate level L2 bilinguals, the differences were not significant (t = .12, df = 7, p = .91 for L2 English bilinguals, t = -.47, df = 12, p = .64 for L2 French bilinguals for narrative length; t = .10, df = 8, p = .92 for L2 English bilinguals, t = -1.26, df = 15, p = .23 for L2 French bilinguals for number of emotion word tokens).

[12] Because L2 Proficiency (and any other subsequent variables analysed in this study, including Amount of L2 use, Degree of L2 identification, and Degree of L2 perception) was not a controlled variable in participant criterion, the number of subjects in each level of proficiency (or in any other subsequent categories) is not symmetrical, and results should be interpreted accordingly.

Speakers	L2 Proficiency *	Number of Words **	Number of Emotion Lemmas	Number of Emotion Word Tokens	Lexical Richness of the Emotion Lexicon (TTR)
Eng Mono (20)	-	26,530 M = 1,326.5	651 M = 60.1	2,054 M = 102.5	0.32
L2 Eng Biling (18)	Intermediate (6)	3,668 M = 611.3	113 M = 18.8	275 M = 45.8	0.41
	High (12)	8,350 M = 695.8	266 M = 22.2	773 M = 64.4	0.34
Fren Mono (19)	-	17,737 M = 933.5	581 M = 52.4	1,490 M = 78.4	0.39
L2 Fren Biling (13)	Intermediate (5)	3,568 M = 713.6	112 M = 22.4	192 M = 38.4	0.58
	High (8)	5,446 M = 680.8	199 M = 24.9	345 M = 43.1	0.58

Table 9. Results by L2 Proficiency in the narrative corpora

* *Self-estimated proficiency in all areas combined (reading, writing, speaking, listening, grammar, vocabulary, pronunciation) on a seven-point scale ranging from very poor (1) to native-like (7). Low proficiency was operationalized as ratings between 1-2, intermediate proficiency as 3-5, and high proficiency as 6-7. None of the subjects rated themselves in the low proficiency group. Refer to Question 10 of the Background Questionnaire in Appendix 3.*

** *All numbers reflect results for the total narratives, i.e., both positive and negative emotion narratives combined.*

However, an interesting result is that for both language groups, lexical richness of emotion vocabulary was higher in the learner corpus than in the native speakers (0.41 and 0.34 in the learner corpus vs. 0.32 in the native speakers). More interestingly, intermediate level L2 learners had a richer or similar lexicon than the highly proficient learners (0.41 vs. 0.34 in the L2 English group, 0.58 vs. 0.58 in the L2 French group). Generally, Hypothesis 3 was not confirmed. Highly proficient L2 bilinguals' greater use of emotion word tokens was not significantly different from less proficient bilinguals and the lexical richness of their emotion vocabulary was actually similar or lower than less proficient bilinguals.

Table 10 summarizes the results in terms of the influence of L2 use.

Speakers	L2 Use*	Number of Words	Number of Emotion Lemmas	Number of Emotion Word Tokens	Lexical Richness of the Emotion Lexicon (TTR)
Eng Mono (20)	-	26,530 M = 1,326.5	651 M = 60.1	2,054 M = 102.5	0.32
L2 Eng Biling (18)	Low (6)	3,332 M = 555.3	159 M = 26.5	273 M = 45.5	0.58
	Medium (6)	3,350 M = 558.3	178 M = 29.7	323 M = 53.8	0.55
	High (6)	5,336 M = 889.3	234 M = 39	444 M = 74	0.53
Fren Mono (19)	-	17,737 M = 933.5	581 M = 52.4	1,490 M = 78.4	0.39
L2 Fren Biling (13)	Low (10)	7,306 M = 730.6	253 M = 25.3	483 M = 48.3	0.52
	Medium (3)	1,708 M = 569.3	74 M = 24.7	112 M = 37.3	0.66
	High (0)	0	0	0	0

Table 10. Results by amount of L2 use in the narrative corpora

* *Self-estimated L2 use overall (at home, at work, elsewhere, with family, with friends, with co-workers) on daily basis, ranging from 10 to 100%. Low L2 use corresponded to 10-40% use, medium use to 50-70%, and high use to 80-100%. Refer to Question 13 of the Background Questionnaire in Appendix 3.*

No significant differences in narrative length were found within the L2 English bilingual corpus between the groups of low, medium, high L2 use ($F(2, 15) = 1.7$, $p = .21$), nor within the L2 French bilingual corpus ($t = .87$, $df = 10$, $p = .41$). Similarly, in terms of the proportion of emotion word tokens, no difference was found in the L2 English bilingual group ($F(2, 15) = 1.13$, $p = .35$), nor in the L2 French bilingual group ($t = .68$, $df = 6$, $p = .52$). With regards to the type/token ration, the L2 English bilinguals showed a greater lexical richness (0.58, 0.55, 0.53 for low, medium, high L2 use) than the English monolinguals (0.32), and the L2 French bilinguals also showed greater lexical richness (0.66) than the L2 French monolinguals (0.39).

Once again, low L2 use English bilinguals showed a greater lexical richness (0.58) than the medium L2 use English bilinguals (0.55) and the high L2 use English bilinguals (0.53). The pattern changed in the French group, where medium L2 use French bilinguals' type/token ration was higher (0.66) than the low L2 use French bilinguals (0.52).

Table 11 summarizes the results in terms of the influence of L2 identification.

Speakers	**L2 Identification***	**Number of Words**	**Number of Emotion Lemmas**	**Number of Emotion Word Tokens**	**Lexical Richness of the Emotion Lexicon (TTR)**
Eng Mono (20)	-	26,530 M = 1,326.5	651 M = 60.1	2,054 M = 102.5	0.32
L2 Eng Biling (18)	Low (2)	1,098 M = 549	52 M = 26	73 M = 36.5	0.71
	Medium (9)	5,830 M = 647.8	261 M = 29	504 M = 56	0.52
	High (7)	5,094 M = 727.7	234 M = 33.4	463 M = 66.1	0.51
Fren Mono (19)	-	17,737 M = 933.5	581 M = 52.4	1,490 M = 78.4	0.39
L2 Fren Biling (13)	Low (0)	0	0	0	0
	Medium (6)	3,275 M = 545.8	107 M = 17.8	187 M = 31.2	0.57
	High (7)	5,739 M = 819.9	219 M = 31.3	381 M = 54.4	0.57

Table 11. Results by degree of L2 identification in the narrative corpora

* *Self-rating of identification to the L2 culture based on a scale ranging from 1 (not at all) to 7 (strongly). Low L2 identification included scales from 1-2, medium L2 identification from 3-5, and high L2 identification from 6-7. Refer to Question 21 of the Background Questionnaire in Appendix 3.*

Here again, although bilinguals with a high degree of L2 identification did produce, on average, longer narrative extracts and used more emotion word tokens than bilinguals with medium and low degree of L2 identification, L2 identification did not emerge as a

significant factor in their performance ($F(2, 15) = .18$, $p = .84$ for L2 English bilinguals for narrative length, $t = -1.16$, $df = 11$, $p = .27$ for L2 French bilinguals for narrative length; $F(2, 15) = .58$, $p = .57$ for L2 English bilinguals for proportion of emotion word tokens, $t = -1.9$, $df = 10$, $p = .08$ for L2 French bilinguals for proportion of emotion word tokens). With regards to lexical richness, interestingly, L2 English bilinguals with low L2 identification had a higher type/token ration (0.71) than those with medium and low L2 identification (0.52 and 0.51). L2 French bilinguals showed a similar ratio of 0.57 regardless of the degree of L2 identification.

Finally, Table 12 summarizes the results in terms of the influence of L2 perception.

Speakers	**L2 Perception***	**Number of Words**	**Number of Emotion Lemmas**	**Number of Emotion Word Tokens**	**Lexical Richness of the Emotion Lexicon (TTR)**
Eng Mono (20)	-	26,530 M = 1,326.5	651 M = 60.1	2,054 M = 102.5	0.32
L2 Eng Biling (18)	Medium (7)	3,350 M = 478.6	148 M = 21.2	263 M = 37.6	0.56
	High (11)	8,668 M = 788	366 M = 33.3	778 M = 70.7	0.47
Fren Mono (19)	-	17,737 M = 933.5	581 M = 52.4	1,490 M = 78.4	0.39
L2 Fren Biling (13)	Medium (4)	2,019 M = 504.8	75 M = 18.8	134 M = 33.5	0.56
	High (9)	6,995 M = 777.2	240 M = 26.7	434 M = 48.2	0.55

Table 12. Results by L2 perception in the narrative corpora

* *Self-rating of how important it is for bilinguals to speak the second language like a native speaker, based on a scale from 1 (not at all important) to 7 (extremely important), in aspects of the L2 covering pronunciation, grammar, fluency, choice of words, use of idioms, use of slang, ability to get one's point across, ability to communicate one's feelings/emotions. Ratings of 1-2 were considered as low L2 perception, 3-5 as medium L2 perception, and 6-7 as high L2 perception. None of the subjects rated as having a low L2 perception. Refer to Question 20 of the Background Questionnaire in Appendix 3.*

Again, the same pattern emerged in that although bilinguals with high L2 perception did produce, on average, longer narratives and used more emotion word tokens than those with medium L2 perception, the difference was not significant (t = -2.29, df = 11, p = .04 for L2 English bilinguals, t = -13., df = 10, p = .24 for L2 French bilinguals for narrative length; t = -2.7, df = 13, p = .02 for L2 English bilinguals, t = -1.3, df = 11, p = .22 for L2 French bilinguals for proportion of emotion word tokens). In the L2 English bilingual group, lexical richness was greater for those with medium L2 perception (0.56) than high L2 perception (0.47), whereas in the L2 French bilingual group, the type/token ration was similar for both sub-groups (0.56 for medium L2 perception and 0.55 for high L2 perception).

In terms of the bilinguals' morphosyntactic choices for emotion words, Table 13 and Figure 6 (on the following pages) show that the bilinguals conformed to the native speaker pattern of their second language. Overall, L2 English bilinguals used more emotion adjectives (40.1% of all emotion word tokens), following the pattern of English monolinguals (43.2%), and L2 French bilinguals used more emotion nouns (31.9%) and verbs (32%), following the pattern of French monolinguals (31.3% for both nouns and verbs). Chi-square tests revealed that for both bilingual groups, the difference in frequency of use of each morphosyntactic category was highly significant (χ^2 = 557.1, df = 4, p < .05 for L2 English bilinguals, χ^2 = 214, df = 4, p < .05 for L2 French bilinguals). Even in the subcategories of positive and negative emotion narratives, the pattern was held consistently, with L2 English bilinguals using more adjectives in positive (41.9%) and negative (38.7%) emotion narratives, while L2 French bilinguals used more nouns in positive emotion narratives (32.2%) and more verbs in negative emotion narratives (34.2%). Adverbs were used about 10% of the time (for total narratives) by both L2 English and L2 French bilinguals, whereas interjections accounted for less than 2% (for total narratives) of the morphosyntactic categories.

Speakers	Narratives	Nouns	Adjectives	Verbs	Adverbs	Interjections
Eng Mono (20)	Positive	220 (22.9%)	453 (47.2%)	207 (21.6%)	55 (5.7%)	25 (2.6%)
	Negative	249 (22.8%)	434 (39.7%)	359 (32.8%)	37 (3.4%)	15 (1.4%)
	Total	**468 (22.8%)**	**888 (43.2%)**	**566 (27.6%)**	**92 (4.5%)**	**40 (1.9%)**
L2 Eng Biling (18)	Positive	110 (24.3%)	190 (41.9%)	119 (26.3%)	33 (7.3%)	1 (0.2%)
	Negative	118 (20.1%)	227 (38.7%)	200 (34.1%)	34 (5.8%)	8 (1.4%)
	Total	**228 (21.9%)**	**417 (40.1%)**	**319 (30.7%)**	**67 (6.4%)**	**9 (0.9%)**
Fren Mono (19)	Positive	219 (32.2%)	196 (28.8%)	189 (27.8%)	72 (10.6%)	5 (0.7%)
	Negative	247 (30.5%)	213 (26.3%)	277 (34.2%)	69 (8.5%)	3 (0.4%)
	Total	**466 (31.3%)**	**409 (27.4%)**	**466 (31.3%)**	**141 (9.5%)**	**8 (0.5%)**
L2 Fren Biling (13)	Positive	94 (38.4%)	63 (25.7%)	65 (26.5%)	23 (9/4%)	0 (0%)
	Negative	87 (26.9%)	77 (23.8%)	117 (36.2%)	35 (10.8%)	7 (2.2%)
	Total	**181 (31.9%)**	**140 (24.6%)**	**182 (32%)**	**58 (10.2%)**	**7 (1.2%)**

Table 13. Comparison of morphosyntactic categories of the emotion vocabulary between monolinguals and bilinguals

An interesting result is that, comparing the use of interjections in positive and negative emotion narratives, both groups of bilinguals used more interjections in negative stories (1.4% vs. 0.2% in L2 English narratives, 2.2% vs. 0% in L2 French narratives).

We can, thus, conclude that Hypothesis 4 was confirmed in that English monolinguals did produce more emotion adjectives than verbs. Hypothesis 5 was also confirmed in that both bilingual groups conformed to the pattern of their respective monolingual speakers in the use of morphysyntactic categories of emotion words: L2 English bilinguals used more adjectives and L2 French bilinguals used more nouns and verbs.

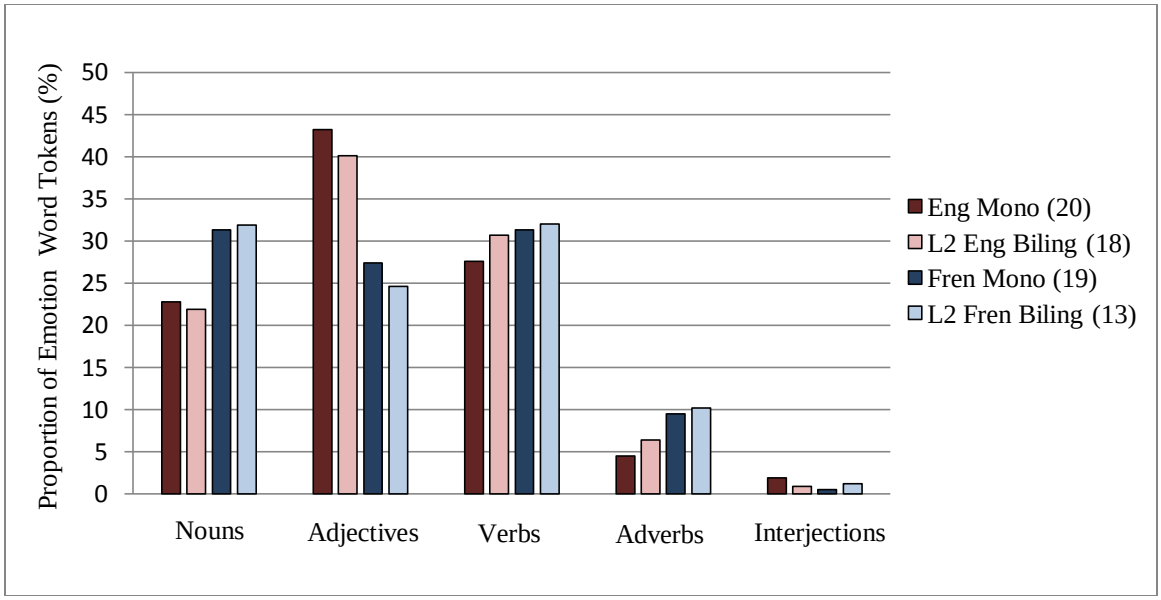

Figure 6. Comparison of morphosyntactic categories for monolinguals and bilinguals (for both types of positive and negative emotion narratives combined)

As to nativelikeness, 7 L2 English bilinguals and 8 L2 French bilinguals, i.e., 16 out of 31 total bilinguals (48.4%) performed nativelike or near-nativelike in terms of morphosyntactic categories of emotion vocabulary. Whereas English monolinguals used 43.2% of emotion adjectives, nativelike L2 English bilinguals used between 42.3% and 57.1% of emotion adjectives. Whereas French monolinguals used 62.6% of emotion nouns and verbs combined, nativelike L2 French bilinguals used between 61% and 81% of emotion nouns and verbs.

This pattern was held consistently when considering the first language of the bilinguals. Given the bilinguals' extended LOR and the late AOA in the L2 country, it is reasonable to expect an L2 transfer on L1 such that L1 English bilinguals might approximate the behavior of French monolinguals and L1 French bilinguals might approximate the behavior of English monolinguals. However, this was not the case in our corpus. From Table 14 and Figure 7 (on the following pages), we see that both L2 English bilinguals and L1 English bilinguals conformed to the English monolingual

pattern of morphosyntactic categories of emotion words and used more adjectives: 40.1% of all emotion word tokens for L2 English bilinguals' total narratives, 41.7% for L1 English bilinguals, and 43.2% for English monolinguals. Moreover, just as the L2 English bilinguals, the distribution of morphosyntactic categories for the L1 English bilinguals was significant ($\chi^2 = 432.2$, df = 4, $p < .05$).

Speakers	Narratives	Nouns	Adjectives	Verbs	Adverbs	Interjections
Eng Mono (20)	Positive	220 (22.9%)	453 (47.2%)	207 (21.6%)	55 (5.7%)	25 (2.6%)
	Negative	249 (22.8%)	434 (39.7%)	359 (32.8%)	37 (3.4%)	15 (1.4%)
	Total	**468 (22.8%)**	**888 (43.2%)**	**566 (27.6%)**	**92 (4.5%)**	**40 (1.9%)**
L2 Eng Biling (18)	Positive	110 (24.3%)	190 (41.9%)	119 (26.3%)	33 (7.3%)	1 (0.2%)
	Negative	118 (20.1%)	227 (38.7%)	200 (34.1%)	34 (5.8%)	8 (1.4%)
	Total	**228 (21.9%)**	**417 (40.1%)**	**319 (30.7%)**	**67 (6.4%)**	**9 (0.9%)**
L1 Eng Biling (13)	Positive	70 (22.2%)	138 (43.8%)	77 (24.4%)	27 (8.6%)	3 (1%)
	Negative	80 (18.5%)	174 (40.2%)	156 (36%)	22 (5.1%)	1 (0.2%)
	Total	**150 (20.1%)**	**312 (41.7%)**	**233 (31.1%)**	**49 (6.6%)**	**4 (0.5%)**

Table 14. Morphosyntactic categories of the emotion vocabulary in the English narrative corpora

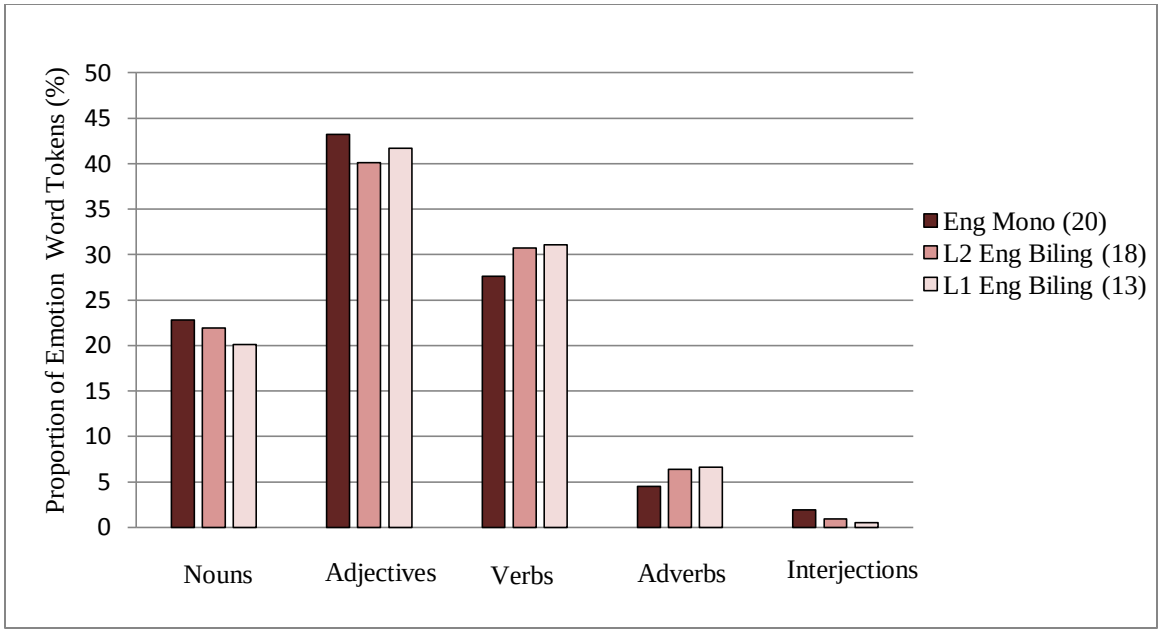

Figure 7. Comparison of morphosyntactic categories in the English narrative corpora

Also for the French narrative corpora (see Table 15 and Figure 8, on the next page), L2 French bilinguals and L1 French bilinguals behaved similarly to the French monolinguals and used more nouns and verbs in describing emotions: 31.9% nouns and 32% verbs for L2 English bilinguals, 30% nouns and 34.9% verbs for L1 English bilinguals, compared to 31.3% nouns and 31.3% verbs for English monolinguals. Here again, just as the L2 French bilinguals, the distribution of morphosyntactic categories for the L1 French bilinguals was significant ($\chi^2 = 522.6$, df = 4, $p < .05$).

This suggests that bilinguals behave according to the context they are in: when speaking in their L1, they conform to the pattern of the L1, when speaking in the L2, they conform to the pattern of the L2, which again suggests that L2 bilinguals may have internalized the L2 pattern of describing emotions in morphosyntactically appropriate ways.

Speakers	Narratives	Nouns	Adjectives	Verbs	Adverbs	Interjections
Fren Mono (19)	**Positive**	219 (32.2%)	196 (28.8%)	189 (27.8%)	72 (10.6%)	5 (0.7%)
	Negative	247 (30.5%)	213 (26.3%)	277 (34.2%)	69 (8.5%)	3 (0.4%)
	Total	**466 (31.3%)**	**409 (27.4%)**	**466 (31.3%)**	**141 (9.5%)**	**8 (0.5%)**
L2 Fren Biling (13)	**Positive**	94 (38.4%)	63 (25.7%)	65 (26.5%)	23 (9/4%)	0 (0%)
	Negative	87 (26.9%)	77 (23.8%)	117 (36.2%)	35 (10.8%)	7 (2.2%)
	Total	**181 (31.9%)**	**140 (24.6%)**	**182 (32%)**	**58 (10.2%)**	**7 (1.2%)**
L1 Fren Biling (18)	**Positive**	206 (37.9%)	160 (29.4%)	128 (23.5%)	47 (8.6%)	3 (0.6%)
	Negative	156 (23.5%)	153 (23.1%)	293 (44.2%)	59 (8.9%)	2 (0.3%)
	Total	**362 (30%)**	**313 (25.9%)**	**421 (34.9%)**	**106 (8.8%)**	**5 (0.4%)**

Table 15. Morphosyntactic categories of the emotion vocabulary in the French narrative corpora

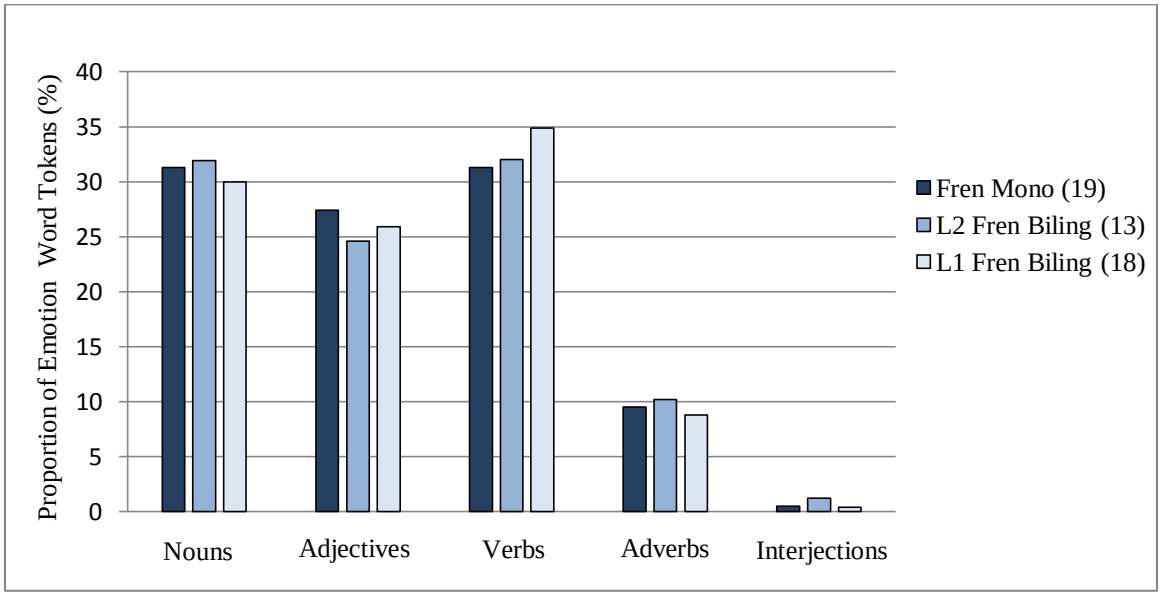

Figure 8. Comparison of morphosyntactic categories in the French narrative corpora

5.4.2 Analysis of lexical choice

Appendices 6 and 7 list the emotion lemmas produced by L2 English and L2 French bilinguals. Analysis of the L2 English bilingual corpus revealed that the words that were used most were *feeling, happy, feel, extremely,* and *oh my god!,* which were used 128 times, in both positive and negative emotion narratives combined, accounting for 12.3% of the emotion word corpus (see Appendix 6). Other words that appeared at least 5 times in the corpus were (in decreasing frequency for each morphosyntactic category):

- Nouns: *emotion, anger, joy, disappointment, experience, frustration, life, mistake,*
- Adjectives*: angry, good/better/best, different, mad, exciting/excited, frustrating/frustrated, great, sad, upset, difficult, disappointing/disappointed, strong,*
- Verbs*: want, try, need, express, lose, love, understand,*
- Adverbs*: basically, completely*.

These words (combined with those that were most frequently used) accounted for 39.7% of all emotion word tokens in the corpus.

When positive and negative emotion narratives were considered separately, the words that were used most in the positive emotion narratives were *feeling, happy, feel* and *extremely* (91 tokens, 20.1% of the positive narrative emotion word corpus) and those that were used most in the negative emotion narratives were *feeling, angry, try,* and *basically* (71 tokens, 12.1% of the negative narrative emotion word corpus). Other words that appeared at least 5 times in the positive emotion narrative corpus were (in decreasing frequency for each morphosyntactic category):

- Nouns: *joy, experience,*
- *Adjectives: good/better/best, exciting/excited, different, great,*

- *Verbs: want, travel.*

These words, combined with those that were most frequently used in the positive narratives, accounted for 33.6% of all emotion word tokens in the positive emotion narratives. In the negative emotion narratives, other words that appeared at least 5 times were (in decreasing frequency for each morphosyntactic category):

- Nouns: *anger, emotion, disappointment, frustration, mistake,*
- *Adjectives: good/better/best, mad, frustrating/frustrated, happy, upset, different, disappointing/disappointed,*
- *Verbs: want, feel, need, lose, express, understand, yell,*
- *Interjections: oh my god!*.

These words, combined with those that were most frequently used in the negative narratives, accounted for 38.3% of all emotion word tokens in the negative emotion narratives.

The analysis of the lexical choices by L2 English bilinguals indicates that they used some of the same emotion words that English monolinguals used, especially, among the most used ones (in decreasing frequency for each morphosyntactic categorory):

- Nouns: *feeling, anger, joy, experience, life, happy,*
- Adjectives *angry, good/better/best, mad, exciting, frustrating/frustrated, upset, disappointing/disappointed,*
- Verbs*: feel, want, try, need, understand*.

In terms of morphosyntactic constructions, L2 English bilinguals did use more emotion adjectives and those adjectives were mostly used, similarly with English monolinguals, in combination with the verbs *to be, to get, to feel*, and the construction "*it*

made me AP", as in Example 7 (confirming once again Hypothesis 5 for qualitative use of L2 emotion lexicon):

Example 7

(a) Just, having the bac *was* just *great*.
(b) That *was* really, really *brilliant*.
(c) I *feel* very, like, kinda *confident*.
(d) That kinda *made me* really *happy*.
(e) So, I *felt* really *ecstatic* about, uh, going by myself.
(f) It, it, it was really, deeply *making me happy*. Very, very much, *making me happy*.
(g) Um, and I was, I *felt* extremely, uh, um, *happy, hopeful, liberated* almost, by this election.
(h) So, that *made me* even more *upset*.
(i) So, I *got angry* when my parents divorced.
(j) Um, so, at the beginning, I guess I *was frustrated*, um, and then, I didn't… and then, I *felt angry*.
(k) It *made me* really *mad*.
(l) I *was* absolutely *flabbergasted*.
(m) And um, this, this violence that was, that was um…that I had been...subject to *made me* really very, very *furious, mad, angry*.

Words that were used most by L2 French bilinguals to describe their emotions were *colère, content, être fâché, bien/mieux,* and *oh!*, which appeared 64 times in all narratives combined, accounting for 11.3% of the emotion word corpus (see Appendix 7). Other words that appeared at least 5 times in the corpus were: *sentiment, bonheur, vie, chanson, problème, différent, en colère, heureux, bon/meilleur, important, comprendre, aimer, essayer, éviter, penser, se fâcher, sentir,* and *seul.* These words, with those that were used most, accounted for 34.3% of all emotion word tokens in the corpus. In the positive emotion narratives, words that appeared at least 5 times in the corpus were: *bonheur, sentiment, chanson, vie, content, heureux, être marié,* and *bien/mieux* (65 tokens, 26.5% of the positive emotion narrative corpus) and those that were used at least 5 times in the negative emotion corpus were: *colère, besoin, différent, en colère, important, bon/meilleur, être fâché, comprendre, éviter, bien,* and *seul* (93 tokens, 28.8% of the negative emotion narrative corpus).

The lexical choices of L2 French bilinguals, as well, revealed similar emotion words used by French monolinguals, especially, among the most used ones, *colère, bonheur, vie, problème, content, en colère, heureux, bon/meilleur, être fâché, comprendre, aimer,* and *bien/mieux*.

In terms of morphosyntactic constructions, L2 French bilinguals also used, following the pattern of French monolinguals, more emotion nouns and verbs, with a preponderance of the construction "*c'est*/*c'était NP*" for nouns, as in Example 8 (once again confirming Hypothesis 5 for qualitative use of L2 emotion lexicon):

Example 8

(a) *C'était le bonheur* complet.
(b) *C'était* vraiment un grand *plaisir*.
(c) *C'est la frustration*.
(d) Ça l'aurait *blessé*.
(e) J'avais beaucoup de *pression*.
(f) Ça aurait été *la honte, la honte* de la famille.
(g) Moi, pas du tout, cette, ce sentiment de *dépression*, c'était euh, vraiment, euh, un sentiment de *bien-être*…
(h) Et eum…euh…tellement de…euh…tellement de…tellement de *joie*, ouais.
(i) Là, encore une fois, une sorte *d'euphorie*, eum, euh…
(j) C'était…*c'était un bonheur*, vraiment euh… aussi, presqu'un *choc*…
(k) Je *déprimais* pas du tout.
(l) Enfin, on était entouré de, enfin, de *joie*, de, de…oui…y avait plus de *tristesse*, pace qu'avant, c'était vraiment, euh, *la galère*, quoi.
(m) *C'était* vraiment un vrai *bonheur*, quoi.
(n) Je cessais pas de sentir une…espèce *d'euphorie*, quoi.
(o) C'était, c'était juste *le plaisir* de, de voir sans rien penser, c'était… oui.
(p) Et j'étais…*le bonheur* total, quoi.
(q) C'était un sentiment de, de *réussite*, de *victoire*…
(r) Ça m'*énerve* quand mon enfant, mon fils de quinze ans, il ne retourne pas mes coups de téléphone.
(s) Alors, euh, je *me suis fâchée* beaucoup.
(t) Je *me suis sentie* vraiment insultée et…
(u) Euh, je *me suis mise en colère*, et ça a marché très bien, quoi.
(v) Encore une fois, un peu d'*colère*, mais pas, peut-être autant de *colère* qu'avant, avec le commerçant. Mais euh, assez de *colère*, assez de *déception*.

These examples show that both groups of bilinguals have acquired the system to a nativelike degree. On occasion, we found pragmatically infelicitous instances of transfer of morphosyntactic choices for both groups of bilinguals: French-English bilinguals sometimes used emotion nouns/verbs in L2 English narratives where English monolinguals would prefer adjectives (Example 9), and English-French bilinguals sometimes used emotion adjectives rather than nouns/verbs in L2 French narratives (Example 10), suggesting a possible transfer of their L1 on their L2.

Example 9

(a) It's really a…a moment, a moment full of *happiness*, to see the three kids coming, and uh, trying gently to wake you up and um…so, it's really a moment of great *joy*.
(b) And I guess, it's, uh, um…*enthusiasm*, very enthusiastic about what I was doing.
(c) I did have a sense of *relief*, that we could still have this *closeness*.
(d) So, it was complete *joy, excitement*, and uh, very, very exciting.
(e) Yeah, great *emotion*, yeah, *joy*, just *joy*, and yeah.
(f) Happy, yeah, but it was more, the feeling was…it was more *relief*.
(g) *Frustration* was at first, a little bit…
(h) What I felt was really deep *disappointment* mostly, uh, very deep *disappointment*…and an extreme amount of *frustration* from my part (laughs). So, yeah. *Frustration*, uh, *disappointment* and um…yeah. (Interviewer: were you angry?) Sure, *anger*, yeah, definitely. I was angry, I was angry at him for not being understanding.
(i) I think, my emotion came to, you know, I burst into a lot of *emotion* at that point, mostly, mostly, it was *anger*.
(j) There are a lot of things that *anger* me also.
(k) Yeah, yeah, so, that, I think, was an *anger*. It wasn't a particular one-day, one-hour *anger*, it was a continuation of *anger* and *frustration*.

Example 10

(a) J'étais vraiment, vraiment *contente*.
(b) J'étais très, très, euh, *contente* avec les résultats.
(c) Oui, on était, j'étais *heureux*. 'Fin, *tranquille*, *content*.
(d) Je trouve que c'est *outrageux* que, que le gouvernement puisse refuser à permettre des investigations impartielles dans cette affaire.

What is interesting in Examples 9(b) and 9(d) is the fact that the L2 English bilinguals start off describing what they felt with nouns (*enthusiasm, excitement*), then, during the same utterance, switch to the adjectival pattern of the same word (*enthusiastic, exciting*), as if correcting their morphosyntactic choice. Also worth mentioning is Example 9(h), in which the bilingual starts off, again with emotion nouns (*disappointment, frustration*). Then, when asked by the interviewer whether she was angry (the interviewer deliberately used the adjectival pattern in order to see the subject's reaction), she first answers with the noun form (*anger*), then later switches to the adjectival form (*angry*). This shows that the bilinguals do know (i.e., are able to acquire) the preferred form for the L2, even though it may not be fully internalized yet. Moreover, some examples provided above, especially those in Example 10, may be perfectly used by monolinguals as well. A French monolingual may be found using 10(a) and 10(b), rather than the nominal form *le contentement*, or 10(c), rather than the form *la tranquilité*. In other words, we cannot and should not claim, in a categorical sense, that because of these examples, these bilinguals are non-nativelike. Individual variability, i.e., how that same bilingual performs throughout his/her narrative, should be taken into account, as well as typological variability, i.e., some words in French, for example, may be more frequently used in their adjectival form (*content, tranquille*), rather than their nominal form (*le contentement, la tranquilité*).

The emotion antecedents of bilinguals were more varied than those of monolinguals'. For L2 English bilinguals, passing the baccalauréat exam, being admitted to a university, a child's birth, trips abroad, reconciliation with a spouse, weddings, finishing a degree, a surprise birthday party, a family vacation, president Obama's election elicited positive emotions, whereas death of a family member, a parent's divorce, an argument with a parent, sibling or colleague, being fired, dealing with the *préfecture*, getting a bad grade, and dealing with a bad boss, settling an inheritance among siblings, for example, elicited negative emotions. For L2 French bilinguals, positive emotions were elicited by getting a job, arriving in France, getting a certification, a family reunion,

a son being accepted at a university, watching a play in London, celebrating a thirtieth birthday, among others, whereas negative emotions were elicited by an argument with a brother, a cultural misunderstanding with a French boyfriend, being underpaid at work, getting bad customer service, being taken advantage of during a hitch-hike, working alone on a group project from a class, conflict between friends and dealing with the war in Iraq.

In order to compare the lexical choices and morphosyntactic constructions bilinguals used given the same emotion topic, we analyzed the narratives of the bilinguals in each of their first and second languages (see Appendices 8 and 9 for lists of emotion lemmas used by bilinguals in their first languages).

In terms of the lexical choices French-English bilinguals made in the positive emotion narratives, the most used words *sentiment, heureux, se sentir,* and *bien/mieux* appeared 66 times, accounting for 12.1% of positive emotion word tokens in L1 French, whereas the most used words *feeling, happy, feel* and *extremely*, appeared 91 times, accounting for 20.1% of positive emotion word tokens in L2 English. In the negative emotion narratives, the most used words *colère, en colère, comprendre,* and *bien*, appeared 50 times, accounting for 7.5% of negative emotion word tokens in L1 French, whereas the most used words *feeling, angry, try,* and *basically*, appeared 71 times, accounting for 12.1% of negative emotion word tokens in L2 English.

For English-French bilinguals, the most used words in the positive emotion narratives in L1 English were *feeling, happy, feel,* and *together*, which appeared 64 times, accounting for 20.3% of positive emotion word tokens in L1 English, and the words *bonheur, content, être marié,* and *bien/mieux* appeared 39 times in L2 French positive emotion narratives, accounting for 15.9% of emotion word tokens. In the negative emotion narratives in L1 English, the most used words *anger, angry,* and *want* appeared 56 times, accounting for 12.9% of emotion word tokens, whereas in the negative emotion narratives in L2 French, the most used words *colère, différent, être fâché* and *bien* appeared in all 44 times, accounting for 13.6% of emotion word tokens.

Among the emotion words used by bilinguals, we found several that were worth being noted.

- *Flabbergasted*: used by a highly proficient French-English bilingual in L2 English in the sentence *I was flabbergasted […] I was absolutely flabbergasted*. The word only appeared one time in the whole monolingual and bilingual corpora and was expressed in French as *J'étais absolument soufflé d'être, d'être traité comme ça*.
- *Frustrated*: (see Example 10(e) and 10(f)) although the French terms *frustré/la frustration* exist, they are not used as frequently as their English counterparts (they appeared a total of 47 times in the English corpus combined vs. 9 times in the French corpus combined). They are also expressed differently in the French narratives, either as *frustré/frustration, blessé*, or *fâché*.
- *Upset*: although widely used in the English corpus, bilinguals used different terms in French to refer to the emotion *upset*, such as, *déception, être en colère, être fâché*. In one instance, a French-English bilingual used the word in English but wasn't able to give the exact equivalent in French so she started explaining the emotion itself (*And so, I got really upset […] I think I just got really upset at him / C'était, c'était, euh, terrible, quoi […] Je ne comprenais pas trop […] Je comprenais pas […] Je comprenais pas, c'était vraiment le sentiment d'être un peu perdue, euh, seule*).
- *Etre énervé*: there seems to be no exact translation equivalent in English for this word, given the different ways bilinguals expressed the concept in English (*J'étais énervée contre lui en espagnol! / I was mad at him in Spanish!; Donc, voilà, ça m'a beaucoup énervé / But yeah, I was angry*).
- *Etre vénère*: used by a highly proficient French-English bilingual in L1 French in the sentence *J'étais vraiment super vénère*. *Vénère* was used as the verlan equivalent of *énervée* and was expressed in L2 English as *I was so mad, I was really upset*.

- *Excité*: the word was mostly used inappropriately by L1 French and L2 French bilinguals in the sense of the English word *excited,* as in *On était très, euh, très excité, très heureux*. *Excité* in French is mostly used in the sense of *to provoke, push someone to do something, to make something more active*, or relating to sexual excitement, not related to an emotional description, in common use.
- *Vexé*: as one L2 English bilingual explains it, the word does not seem to have a translation equivalent in English (*Frustration was at first, a little bit, and I was 'vexée', you see, I don't know how to say 'vexée' either, because 'vexée', I was kinda hurt, but my – 'vexée' is like, my ego is hurt, you know*).

With regards to the morphosyntactic categories of emotion words, as was seen in Table 13, in each of their first and second languages, the bilinguals conformed to the morphosyntactic pattern of emotion words of the monolinguals of their respective languages. In describing the same emotional experience in their two languages, French-English bilinguals preferred adjectives in their L2 English narratives and nouns/verbs in their L1 French narratives, as in Example 11 (L1F corresponds to L1 French, L2E to L2 English).

Example 11

(a) L1F : Ben, beaucoup de *fierté*…et…beaucoup d'*excitation* et de *fatigue*.
(b) L2E: …It was just very *exciting*.

(c) L1F : La campagne électorale de, de deux, d'ailleurs, de Hillary Clinton et Président Obama a suscité énormément d'*espoir* pour moi […] grande, grande *joie*, un grand *sentiment* de, un *sentiment* de, de, d'*espoir* qui était très, très fort […] et aussi une grande *fierté* vis-à-vis des Etats-Unis.
(d) L2E: I felt extremely, uh, um, *happy, hopeful, liberated* almost, by this election […] I was really, I was really *proud* of what this country had done […] It was a very *happy* evening […] It was an explosion of joy.

(e) L1F : C'était un grand moment de *bonheur*.
(f) L2E: It was very *delightful* […] It was a moment of joy, of happiness, of pride, I suppose, you know…

(g) L1F : Ça m'a vraiment, ca m'a donné une *joie* […] C'était le *bonheur*. C'était exactement, voilà, c'était l'*bonheur*.
(h) L2E: I just really felt *happy* to be at that point […] That kinda made me *happy*.

(i) L1F : J'ai *fait la gueule* à mon père […] On *s'est fâché* un p'tit peu.
(j) L2E: I was *mad* at my parents, *angry* at them.

(k) L1F : C'était vraiment *l'horreur* […] Enfin, ça a été *l'horreur*.
(l) L2E: I mean, just…*awful* stuff […] Yeah, it was just, uh, *terrible*!

(m) L1F : Et donc, mon mari, euh…ne, ne *comprenait* pas […] Il ne *comprenait* pas.
(n) L2E: I was angry at him for not being *understanding*.

(o) L1F : Donc, c'était plutôt de la, de la *colère* […] Euh, beaucoup de *colère*, euh, un peu de *frustration*, mais surtout de la *colère*…
(p) L2E: And that made me *angry* […] I was too *angry* […] And just, the frustration that keeps repeating, just *frustrating*.

(q) L1F : Ça a été une énorme *colère*. C'était vraiment, eum, un moment de, un moment de *rage* ou de *colère* que je ne contrôlais plus.
(r) L2E: Mostly, mostly, it was anger…I was just, I was *enraged*…made me really very, very *furious, mad, angry*.

(s) L1F : La *peur* avait été très forte.
(t) L2E: I had mostly been, um, extremely, uh, I was *scared*, uh, when I was driving

(u) L1F : Donc après, la *colère* commence à monter.
(v) L2E: So then, I started to *get angry*.

(w) L1F : J'étais, oui, enfin, y a *tristesse*, y a …
(x) L2E: That *made me sad*.

The same pattern held true for English-French bilinguals, given the same emotional description**,** in that they preferred nouns/verbs in their L2 French narratives and adjectives in their L1 English narratives, as in Example 12:

Example 12

(a) L1E: I felt really *content* with where I was in life and what I was doing in life.
(b) L2F: C'était, euh, vraiment, euh, un *sentiment de bien-être*, d'être vraiment, avoir ma place dans le monde.

(c) L1E: I wasn't at all *depressed* about turning 30.
(d) L2F: J'avais 30 ans, je *déprimais* pas du tout […] Moi, pas du tout, cette, ce *sentiment de dépression*.

(e) L1E : Was a really *happy* day […] It was a *great* day.
(f) L2F: C'était *le bonheur* complet.

(g) L1E : So that was *fun*, uh…quite *euphoric*, really.
(h) L2F : Euh, oui, une *satisfaction*. Là, encore une fois, une sorte d'*euphorie*…

(i) L1E: …but I was *scared* that I could not be able to talk to people about different things than the fact that I was an American […] And, um, you know, so, I was *scared* too. *Scared*, but *excited*. It changed everything for me.
(j) L2F: Alors, c'était vraiment une période de…d'*épatement*, de, d'*exploration*, de *découverte* et de *peur* aussi (laughs) parce que je savais pas que j'allais…arriver à parler français.

(k) L1E : I was very *happy* […] It was very *fun*, very *fun*, very *relaxing* […] I was really *happy*…*happy*, *content*.
(l) L2F: C'était vraiment, un vrai *bonheur* […] Faut parler du *contentement*.

(m) L1E : And I remember feeling…extremely *euphoric* throughout the entire production.
(n) L2F: Je me sentais, euh, pendant trois heures, je cessais pas de sentir une…espèce d'*euphorie*, quoi.

(o) L1E : First of all, I'd been really *worried*. I was tense because I'd been *worried*.
(p) L2F: Donc je commençais à me faire *des soucis*, euh, bon, je commençais à me faire *des soucis*.

(q) L1E : And I was trying to resolve the situation and got very *frustrated* and *angry*.
(r) L2F: Et je, mmhhmm, je…enfin…je *me suis* vraiment *fâché* contre lui.

However, we also found evidence of systematic difficulties with morphosyntactic choices and retrieval of emotion words in both groups of bilinguals. Non-nativelike morphosyntactic choices of French-English bilinguals are evident in Example 13:

Example 13

(a) L1F: J'étais vraiment très, très *soulagée*.
(b) L2E : The feeling was…it was more *relief*.

(c) L1F: Je me souviendrai toujours, en effet, de ce sentiment de…ah ! de *plaisir* et de *joie* quand, euh, quand elle est née.
(d) L2E : It was just the *joy* of having your baby there.

(e) L1F: C'est vraiment un très grand moment de *joie*.
(f) L2E : It's really uh, a moment of great *joy*.

(g) L1F: C'était la *joie* complète…on était très, très, très *content*.
(h) L2E : It was complete *joy* and *excitement* and uh, very , very exciting.

(i) L1F: Beaucoup d'émotions, beaucoup de *joie.*
(j) L2E : Yeah, great emotion, yeah, *joy*, just *joy*, and yeah.

(k) L1F: J'étais très, très *mécontent*.
(l) L2E : Uh, lot of *anger*, I guess.

These examples may suggest an L1 transfer on L2, resulting in the preference of nouns in L2 English.

Example 14 shows non-nativelike morphosyntactic choices of English-French bilinguals.

Example 14

(a) L1E: I was a little bit in a state of *shock*.
(b) L2F: J'étais dans un état, un peu de *choc*, mais c'était un *choc* positif.

(c) L1E : Yeah, so *relief*, *happiness*.
(d) L2F: Enfin, on était entouré de, enfin, de *joie*, de, de…oui, y avait *plus de tristesse*…

(e) L1E : And so, it was a very good feeling of *reinforcement* of what I wanted to do.
(f) L2F: Mais c'était une, eum, comme vous pouvez imaginer, c'était un sentiment de, de *réussite*, de *victoire*…*accomplissement*, oui.

These examples may suggest an L2 transfer on L1 resulting in the preference of nouns in L1 English, instead of adjectives.

Difficulties with lexical retrieval were also evident through some verbal and nonverbal behaviors described by Pavlenko and Driagina (2007) in their study of L2

Russian narratives (we also added some other aspects that were not mentioned in their study). These included:

- Pausing (evidenced by the sign '…' in the above examples), hesitation (evidenced by the use of hedges such as *uh, mmmhmmm, euh, eum*, in the above examples), and false starts in sentences describing the speakers' feelings, as in Example 15:

Example 15

(a) L2E: Also, yes makes me / anger, yeah, makes me sad, yeah, especially when it leads to nothing.
(b) L2F: Et, euh, quand elle est, euh / donc l'a--, l'accouchement lui-même a été difficile pace que, euh…ben, c'était difficile à venir.
(c) L2E : Um, so at the beginning, I guess I was frustrated, um, and then, I didn't / and then, I felt angry.
(d) L1E: It was / and you know, I mean, you know the song, you know the music, but it was such a / so well done and well performed that…
(e) L2E: In New York, I think you can get… / In Florence, when you have these moments where they, where you feel that you wanna get out in the city and you're imprisoned by it.

- Laughter in the context of pauses and false starts when attempting to use an emotion word. According to Pavlenko and Driagina (2007), these laughters are commonly used to cover up the feeling of discomfort about one's proficiency, as in Example 16.

Example 16

(a) L1F: Euh, là, je crois que ca a été l'émotion la plus forte, euh… (laughs), que j'ai vécue, euh…j'avais vraiment du mal à trouver mes mots, euh, j'étais…bouche bée, les larmes aux yeux.
(b) L2E : Yeah, I was, uh… I guess I'm not really good at… (laughs) English. Just very happy, looking forward to what it's like.
(c) L2F: Euh, j'étais…vraiment…embêtée, et je crois que ça, c'est le mot. Et, enfin, j'étais plein (inaudible because of laughs).

- Questions to the interviewer about the correct form, meaning, pronunciation of L2 emotion words, as in Example 17.

Example 17

(a) L1F: C'était, c'était…non, c'était vraiment, euh, encore une fois, c'était vraiment un…un 'disappointment' ?
(b) L1F : Mais, euh, je dois dire que, oui, c'était la frustr—la frustr—mmhmm, comment on dit 'frustration' ? Frustration, ouais, d'être, euh, un p'tit français, qui habitait en Amérique et qui voulait devenir, euh, comme les gars.
(c) L1F : Elle pense que, euh…je suis quelqu'un de, de, de, de… 'mean' ?
(d) L2F : en ce temps, j'avais beaucoup de…frustration. Does that work ? (laughs)
(e) L2F : Oui ! J'étais en colère, j'étais frustrée, j'étais…un peu, eum, I think it's pronounced 'apathétique' ? (the correct word should be *apathique*)

- Appeal to alternative means of describing emotion, such as repetition, more explanation of the actual feelings without choosing an emotion word per se, as in Example 18.

Example 18

(a) L2F: J'étais ravie, ravie d'arriver à Montpellier.
(b) L1F: J'avais l'impression que j'appartenais à quelque chose, quoi, à un groupe, tu vois.
(c) L2E : I always had the feeling my father didn't, I had two brothers and one sister, and he didn't really love me the same way.
(d) L1E: The way that one might feel, you might feel that way when you just passed an exam or if you've just finished work for the year, when you're suddenly on holiday, the feeling of, yeah, euphoria, excitement, uh, and completing something as well.
(e) L2F: J'avais l'impression d'être dans le paradis.

- Lexical borrowing in cases where no exact translation equivalent was available for a word in one language, and code-switching in the middle of an utterance, as in Example 19.

Example 19

(a) L1F: Donc, ça m'a fait, ça m'a fait me sentir, euh, bien, euh…eum, ça a boosté ma confidence. Oh ! We don't say that ! Ok, mince ! Comment on dit? Ok, I lost my French (laughs). Ça m'a donné confidence en moi, voilà, de voir que, bon, je pouvais arriver à faire ça. (the correct word, instead of *confidence* should be *confiance* en moi)
(b) L1F : On a passé une semaine très sympa où on a pu, euh, euh, 'bond', tu vois, je sais pas comment on dit 'bond' (laughs). Voilà.
(c) L1F : J'étais contente et excitée de pouvoir changer de pays (as mentioned before, the French word *excité* does not have the same meaning as the English word *excited*)
(d) L2E: So, I don't know how to say 'rancunière', you see, for example, so, I would say, I feel I was angry at her.
(e) L2E: Frustration was at first, a little bit, and I was 'vexée', you see, I don't know how to say 'vexée' either, because 'vexée', I was kinda hurt, but my – 'vexée' is like, my ego is hurt, you know.
(f) L2E: And that was a moment I felt, you know, just suddenly, un grand bonheur. It could- it couldn't be explained.
(g) L2E: So, I could see myself flaming up there, very powerfully, as a mother would, you know, un cygnet avec ses…ses petits. Elle est connue pour être, euh…féroce. Et là, je me vois, euh…I can be ferocious…
(h) L2E : I don't beat up on anybody, I don't scream on anybody, but I have this little gesture, you know…of disrespect, I, I…you know, I don't spank, you know, I…je claque! (laughs), you see? Je claque les mains, je tape les mains, je tape mes mains. I spank my hands, I tap my hands, you know, on her butt, you know.
(i) L2 F: Et puis, en général, j'arrive à gérer [la colère] en fonction, en fonction de… Il y a une expression en anglais, euh, qui est bien pour ça, euh… « voting with your feet » (rires). Voilà. Donc après, je vôte avec mes pieds (rires). Ça se dit pas en français, mais voilà.

Or, this L2 English speaker who was having trouble describing, in L2 English, an emotion felt in her L1 French context:

(j) L2E: So, um, that's really…but, the way, when I would talk to my other brother and try to explain to him, I, I could tell him, um… But again, that would, that would all be in French, so, now, I'm trying to…relive this…these emotions, and it's hard, you cannot, it's just hard to translate word for word, um…uh…because these emotions, I felt in French because it was all, uh…it was all around a French situation I really felt.

In sum, although L2 English and L2 French bilinguals' narratives were shorter than the monolinguals' and the proportion of emotion word tokens were fewer than that of monolinguals', these bilinguals did show greater lexical richness than the monolinguals. In terms of morphosyntactic categories, bilinguals behaved in a nativelike pattern such that L2 English bilinguals favored adjectives and L2 French bilinguals preferred nouns/verbs. This pattern was held constant across the first languages of the bilinguals. However, non-nativelike patterns also emerged, suggesting both L1 transfer on L2 (L2 English bilinguals favoring nouns/verbs) and L2 transfer on L1 (L1 English bilinguals favoring nouns/verbs). In terms of lexical choice, several emotion words were found that had no exact translation equivalents in the other language. These were expressed differently depending on the context of the narratives. Finally, difficulties with lexical retrieval was evidenced through verbal and non-verbal behaviors, such as pausing, hesitation, false starts, laughter, questions, alternative means of emotion description, lexical borrowing, and code-switching.

In the next chapter, we turn to the results on stance markers.

Chapter 6: Results for Stance Markers

This chapter provides a thorough, empirical analysis of stance marking in the discourse of emotions of monolingual and bilingual speakers of English and French. First, sample narratives illustrate how monolingual and bilinguals used these markers in expressing emotions. Then, through a comprehensive overview, monolingual and bilingual corpora were analyzed in terms of the proportion of stance lemmas and tokens, the distribution of stance markers across five categories, and lexical choice. Effects of L2 proficiency and L2 use on the proportion of stance lemmas and tokens were also investigated. A final section deals with the analysis of discourse features in the bilinguals' narratives of emotions. The features analyzed included figurative language, reported speech, epithets, depersonalization, and amount of detail. Emphasis was put on cases of nativelike performance in stance markers and discourse features.

6.1 SAMPLE STANCE MARKING IN NARRATIVES

The four narrative extracts below illustrate how monolingual native speakers of English and French and bilingual speakers, both American learners of French and French learners of English, mark stance in narratives. Stance markers are marked in italics.

6.1.1 Narrative extract of an English monolingual for the emotion 'angry'

Being rear-ended by a car:
I called my insurance and then, *we found out that* it was *actually* a rental car, and we were at the Saratoga Race Track.
Um, so, *most likely*, the man was *probably a little* drunk, although he had like, a twelve-year-old boy in the car with him, which was kinda sad.
Um, but *I remember* speaking with the police officers, and, you know, they put a P.B.? or whatever out, to try to catch him with the plate and stuff, but they never ticketed this man or anything.

Um, and *I remember* going all the way, *like* three days in a row, *like* calling the police department, "Did they get him?" 'Cause I need the information for the insurance and stuff, and that's when I found out it was a rental car.
And then, you know, I called up at Hertz.
I got the name, and, you know, they finally said that, they were, um, where he was returning at the airport and the police officers *wouldn't* go there to arrest him or give him a ticket for, you know, a hit-and-run accident.
I think that's *probably* one of the… madest times… (laughs), you know.
How could he get away with this?
[Interviewer: did you confront the police about it? How did you express your anger?]
Yeah, well, I told him, I said, "You, you *can* go to the airport where he's returning the car. He has to bring the car back there", you know, "wait there for him", you know.
They *just* didn't wanna be bothered or take the time or… you know, it's upstate and it's **a** *little bit*… different.
Yeah, they didn't…
So I was *just very* angry, *very* frustrated, and…
Other than that, I *really*, I *really* don't get angry, you know, get mad.
[Interviewer: did you talk with your husband about this?]
Oh, my husband was with us and he… "Oh forget it!", which made me even madder (laughs).
How *can* you get your car smashed and nobody care? (laughs)
Interviewer: was your husband angry?
Well, he was mad the first time but… you know, then, it *kinda*, you know, let it go away.
[Interviewer: so, you were very angry, frustrated… Could you describe your feelings in other ways?]
Um, no, *just very* angry, frustrated.
I guess, kind of upset, you know, that they *wouldn't* do anything, um… *kind of*, you know, *kind of*, bewildered, "What do you…? Why…? Why…?" (laughs)… Why they wouldn't do anything?
A lot of being bewildered, trying to figure out why.

6.1.2 Narrative extract of an L2 English bilingual for the emotion 'happy'

Meeting with daughter at the library:
And, uh… It was *very* delightful, it was, it was, uh, at that very moment, it was a moment of joy, of happiness, of pride, *I suppose*, you know, to see my daughter doing, you know, research, blablabla, in Africa, in South Africa.
Yeah, you see, *I think, I think* she had, we had, we had… we had the library in common at that very moment, and it's more my world than hers, *definitely*, but we also had Africa together, we both love Africa.

And so, you know, there was, *I suppose*, well, *I don't know, I guess* at the very moment, it was *just* a library feeling, but there was also, *the fact that* we were together in Africa, you know…

6.1.3 Narrative extract of a French monolingual for the emotion 'fâché/en colère'

Getting a bad grade in English at the baccalaureat exam:
Euh, j'avais discuté avec la, la personne qui faisait l'oral.
Euh, c'était *peut-être*, c'était *trop* amical, presque, pace que, *je sais pas*, je, je, ou alors, ils ont mélangé ma copie, *j'en sais rien*.
J'ai toujours des doutes.
Bon, après, je, j'ai, euh, des bonnes notes là où j'aurais pas dû en avoir, donc, c'est *vraiment* un équilibre, hein.
Je me plains pas mais c'est *justement*, euh--- ouais, j'ai, j'ai cherché longtemps à comprendre, euh, comment ça avait pu arriver, eum (pense).
Je sais pas, qu'est-ce que…
[Interviewer : vous avez ressenti quoi ?]
Et ben, quand …l'émotion est fort, quand j'ai appris le résultat, euh, euh, chuis…
J'ai voulu, euh, absolument, euh, comment, euh, enquêter, euh, qui a donné cette note.
Euh, « est-ce que c'est bien moi ? », euh, eum, je---
Bon, euh, c'est, bon, par rapport dans la classe, ça, m'a *un peu* gêné (rires) d'en parler.
Je voulais pas en parler.
Les profs qui me demandaient ce qui s'est passé et tout ça, et j'ai pas d'explication, euh, euhmm, donc, euh..
Bon, *je pensais que* c'était, euh, c'était pas totalement juste mais, euh---
C'est pas un évènement tragique, hein.
je peux pas, euh…
[Interviewer : vous avez exprimé vos sentiments à vos proches ?]
Euh, ouais, ouais.
Je pense que c'est ça qui…
Ouais, c'est pas *vraiment* injustice mais c'est incompréhension, quoi, ou, euh--------- questionnement sur si je sais *vraiment* parler anglais ou pas ou est-ce que j'étais *trop* orgueilleux ou est-ce que, euh, ouais, je me questionne moi-même finalement.
Euh, *peut-être* que j'ai mal fait quelque chose euh--- *je pense*, finalement, *je pense pas*, mais, euh, je, j'ai pas d'explication.

6.1.4 Narrative extract of an L2 French bilingual for the emotion 'heureux'

Arriving in France for the first time:

Alors, euh, au moment où j'ai… *j'ai appris que* j'allais vivre en France, euh, j'étais épatée *vraiment*, parce que ça s'est précipité *très* vite, d'une manière… pas *très* anticipée et, euh, ça s'est passé pendant… dans, dans quatre jours.
Alors, euh, oui, j'ai décidé, et quatre jours plus tard, je suis arrivée en France et, euh, on m'a inscrit, euh, à l'internat, au lycée et ma mère est restée avec moi pendant deux semaines, euh, pour euh, m'aider, quoi, parce que ma mère, elle parlait français et moi, non.
Alors, euh, j'avais appris, je *pouvais* écrire des notes, euh, en classe.
J'écrivais des notes à mes profs, parce que j'arrivais pas à parler, je comprenais *un petit peu* et j'écrivais *un petit peu***.**
alors, euh, elle est restée avec moi deux semaines et, euh, pour acheter des draps, des choses comme ça.
et après, elle est partie.
Mais *je me souviens que* j'étais, euh… *j'avais l'impression d'*être dans le paradis parce que j'étais *vraiment*, euh, j'avais seize ans, et j'étais *très* proche du… de la rivière.
On était, euh… la Riviera, c'est, euh, on était juste au-dessus, sur un plateau qui s'appelle Sophia Antipolis, je sais pas si tu connais mais, mais on *peut* à peine voir la mer de, de là haut, mais c'est *assez* proche pour aller, les week-ends, à Nice ou à Antibes.
Alors, c'est pas *exactement* sur la Riviera, mais c'est *assez* proche.
Alors, euh, pour moi, ça m'a ouvert un, *beaucoup* de, *beaucoup* de possibilités et *bien sûr*, j'ai rencontré des amis qui venaient de partout dans le monde. Oui.
[Interviewer : vous avez ressenti quoi comme émotions ?]
C'était… c'était un bonheur, *vraiment*, euh… aussi, *presqu'un* choc parce que je suis, je suis partie d'ici et comme ça, on a fait la décision, après, euh, le début de l'année scolaire.
Alors, donc, on a téléphoné à, au lycée en France, on nous a dit « mais, dépêchez-vous parce que là, on a déjà commencé et elle parle pas français ! » (rires).
Et alors, (rires) « i- i- i- i- i- faut arriver ! ».
Alors, oui, j'ai fait mes valises, et je suis partie, comme ça.
Alors, euh, oui, j'étais dans un état, *un peu* de choc, mais c'était un choc, positif.
C'est *vraiment*, euh, quelque chose que je *voulais*, que j'avais toujours *voulu*.
Et, euh, ça m'a changé la vie, pace que, euh, avant, euh, j'étais *vraiment* une fille, euh, une adolescente des banlieues de New York et ça m'a changé complètement les idées.
Euh, ça m'a changé la manière de penser, de voir le monde, euh, de communiquer, *bien sûr*, et, euh, et de… comment… comment on *peut* vivre, ça m'a donné *beaucoup plus d'*options.
Alors, c'était *vraiment* une période de… d'épatement, de, d'exploration, de découverte et de peur aussi (rires) parce que *je savais pas que* j'allais… arriver à parler français.
Alors, au début, j'avais, j'étais… *assez* terrifiée parce que je *voulais* pas être l'américaine qui parle pas, pace que tout l'monde se moquait de moi, *un p'tit peu*, gentiment, mais quand même les blagues, euh, vous savez, « combien de langues, euh, une personne qui parle deux langues, ca s'appelle quoi ? Alors, c'est un bilingue. Et une personne qui parle une langue, ça s'appelle quoi ? Un américain ».

Alors, *vraiment*, j'ai *tout* fait pour ne pas avoir l'accent américain, pour NE pas, euh… j'ai complètement… pour arriver à… à pouvoir parler avec des gens d'autres choses que le fait que j'étais américaine, parce que tout le monde *voulait* parler de ça tout le temps, alors, « ça te plait la France ? », blablablablabla.
Alors, euh, après, euh, cent fois, euh (rires), je me suis dit « i- FAUT arriver, i- FAUT parler *très* bien, parce que, comme ça, les gens *peuvent* me parler de… [Interviewer : d'autres choses ?] oui ! de ce qui s'passe dans Le Point, quoi (rires).

6.2 ANALYSIS PROCEDURES

We analyzed the data quantitatively using parametric and non-parametric tests, including independent sample *t*-tests, analyses of variance (ANOVA), chi-square procedures, and Scheffé post-hoc comparisons. For all statistical analyses, we used $\alpha = .05$ as criterion for significance. We first analyze the frequency of stance lemmas and tokens in the narratives of native speakers and L2 learners and then discuss the influence of independent variables, especially, native language, L2 proficiency and amount of L2 use on the proportion of stance lemmas and stance tokens in each corpus. We also examine the influence of these variables on the distribution of stance tokens across the different stance categories selected in this study, i.e., evidentials: certainty, evidentials: doubt, hedges, and emphatics.

For both monolingual and bilingual corpora, we analyzed the proportion of stance lemmas/tokens, the distribution of lemmas across the five stance categories analyzed, and lexical choice for stance. Once again, our participants are a small and not fully representative sample of the population of monolingual speakers. Therefore any generalization of findings beyond the present sample must be done with due caution. In addition, since the demographic characteristics of the monolingual groups are not identical, as reviewed in Chapter 4 and restated in Chapter 5, results of inter-group comparisons must likewise be interpreted cautiously.

6.3 RESULTS OF THE MONOLINGUAL CORPORA

6.3.1 Quantitative analysis

Table 16 summarizes the comparison of the English and French monolingual corpora in terms of stance lemmas and tokens.

Speakers	Narratives	Number of Words	Number of Stance Lemmas	Number of Stance Tokens
Eng Mono (20)	Positive	12,204 M = 610.2	54 M = 14.3 SD = 5	713 M = 35.7 SD = 19.6
	Negative	14,326 M = 716.3	63 M = 15.2 SD = 6.5	771 M = 37.5 SD = 24.2
	Total	**26,530** **M = 1,326.5**	**71** **M = 22.5** **SD = 6.5**	**1,484** **M = 74.2** **SD = 40.4**
Fren Mono (19)	Positive	7,744 M = 407.6	56 M = 10.2 SD = 4	384 M = 20.2 SD = 14
	Negative	9,993 M = 525.9	52 M = 10.2 SD = 5.1	400 M = 21.1 SD = 4.9
	Total	**17,737** **M = 933.5**	**72** **M = 16.7** **SD = 6.3**	**784** **M = 41.3** **SD = 24.1**

Table 16. Stance lemmas and tokens in the English and French monolingual corpora

For both positive and negative emotion narratives combined (total row), the English monolinguals produced significantly more stance lemmas (M = 22.5) than the French monolinguals (M = 16.7) (t = 2.82, df = 37, p = .008) and also more tokens (M = 74.2 vs. M = 41.3) and the difference was also significant (t = 3.11, df = 31, p = .004). In separate analyses of positive and negative emotion narratives, the same pattern was found. In positive emotion narratives, English monolinguals produced significantly more stance lemmas than French monolinguals (M = 14.3 vs. M = 10.2, respectively) (t = 2.83, df = 36, p = .008), and also significantly more stance tokens (M = 35.7 vs. M = 20.2, respectively) (t = 2.85, df = 35, p = .007). In negative emotion narratives as well, English

monolinguals produced significantly more stance lemmas than French monolinguals (M = 15.2 vs. M = 10.2, respectively) (t = 2.71, df = 36, p = .01), and also significantly more stance tokens (M = 37.5 vs. M = 21.1, respectively) (t = 2.57, df = 32, p = .02).

When monolingual groups were considered on their own, English speakers used a bit more stance lemmas and tokens in the negative emotion narratives than in the positive narratives (M = 15.2 vs. M = 14.3 for lemmas; M = 37.5 vs. M = 35.7 for tokens) but the differences was not significant (t = -.27, df = 36, p = .79). French speakers' use of stance lemmas and tokens in the two types of narratives were very similar (M = 10.2 vs. M = 10.2 for lemmas in negative and positive narratives, respectively; M = 21.1 vs. M = 20.2 for tokens in negative and positive narratives, respectively) and the difference was also not significant (t = -.18, df = 36, p = .86). We can, thus, conclude that there is a native language effect for the proportion of stance lemmas and tokens, both in positive and negative emotion narratives, whereas no within group effects were found, neither for the English monolinguals, nor for the French monolinguals.

Regarding the distribution of stance markers across the five categories analyzed (evidentials: certainty, evidentials: doubt, hedges, emphatics, and modals), Table 17 summarizes the monolingual group results, and Figure 9 (on the next page) illustrates the results graphically.

Speakers	**Narratives**	**Evidentials: Certainty**	**Emphatics**	**Evidentials: Doubt**	**Hedges**	**Modals**
Eng Mono (20)	Positive	94 (13.2%)	264 (37%)	104 (14.6%)	125 (17.5%)	126 (17.7%)
	Negative	79 (10.2%)	279 (36.2%)	135 (17.5%)	104 (13.5%)	174 (22.6%)
	Total	**173 (11.7%)**	**543 (36.6%)**	**239 (16.1%)**	**229 (15.4%)**	**300 (20.2%)**
Fren Mono (19)	Positive	104 (27.1%)	165 (43%)	50 (13%)	32 (8.3%)	33 (8.6%)
	Negative	78 (19.5%)	143 (35.8%)	68 (17%)	56 (14%)	55 (13.8%)
	Total	**182 (23.2%)**	**308 (39.3%)**	**118 (15.1%)**	**88 (11.2%)**	**88 (11.2%)**

Table 17. Stance categories in the English and French monolingual corpora

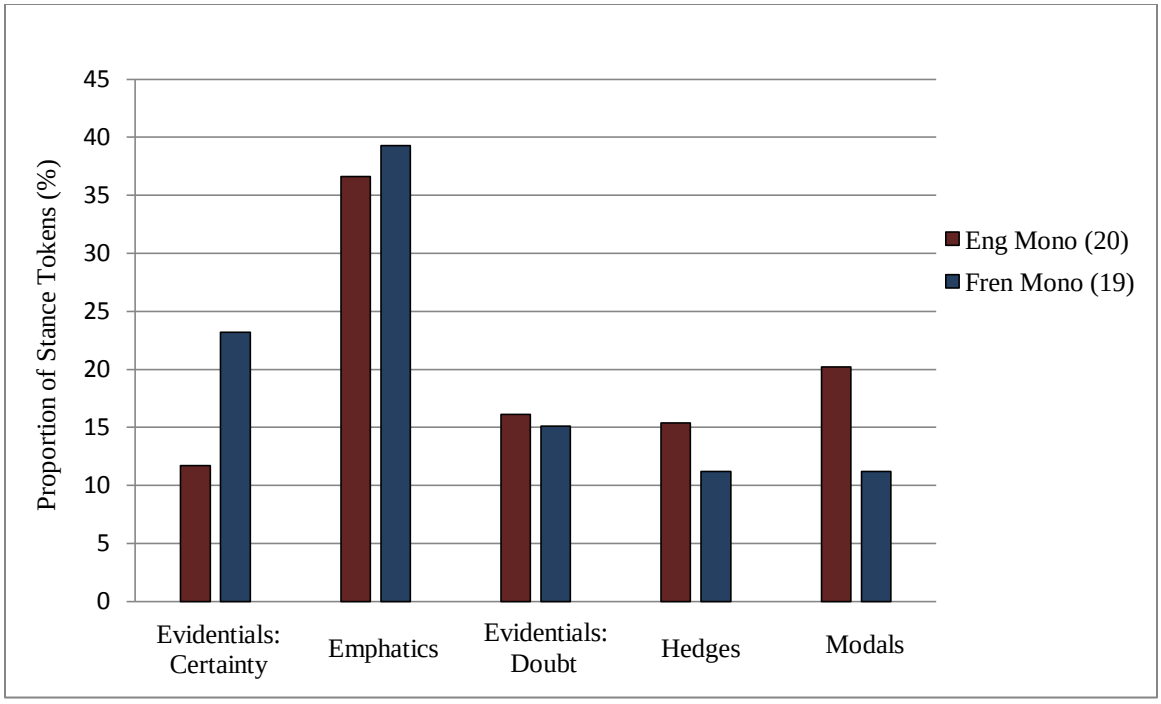

Figure 9. Comparison of stance categories for English and French monolinguals (for both types of positive and negative emotion narratives combined)

As we can see, speakers of English and French both preferred emphatics as their first choice in marking stance in narratives (36.6% of all stance tokens in English and 39.3% in French). However, the order of preference differed for the rest of the categories such that English monolinguals preferred modals next (20.2%), doubt evidentials (16.1%), hedges (15.4%), and certainty evidentials last (11.7%), whereas French monolinguals favored certainty evidentials as the second choice (23.2%), doubt evidentials (15.1%), and then, hedges and modals as the last choices (both 11.2%).

In order to see whether this distribution for each monolingual group was a result of chance or if there really was a pattern of preference, we performed the chi-square test. For both groups, the distribution of stance categories was not equal and the difference in the frequency of use of these categories was highly significant ($\chi^2 = 282.6$, $df = 4$, $p < .05$ for English monolinguals; $\chi^2 = 219.9$, $df = 4$, $p < .05$ for French monolinguals).

These patterns held similarly within the subcorpora of positive and negative emotion narratives. In the positive emotion narratives, English monolinguals still favored emphatics (37% of all stance tokens), followed by modals (17.7%) and hedges (17.5%), then, doubt evidentials (14.6%), and last, certainty evidentials (13.2%). French monolinguals also favored emphatics as their first choice (43%), followed by certainty evidentials (27.1%), then, doubt evidentials (13%), and last, modals (8.6%) and hedges (8.3%). In the negative emotion narratives, the two groups showed a similar pattern of behavior. The English group chose emphatics (36.2%), modals (22.6%), doubt evidentials (17.5%), hedges (13.5%), and certainty evidentials (10.2%) in order of preference, whereas the French group preferred emphatics (35.8%), certainty evidentials (19.5%), doubt evidentials (17%), hedges (14%), and modals (13.8%) in order of preference. The semantic interpretation of this distribution will be discussed in the following qualitative analysis section.

6.3.2 Analysis of lexical choice

Stance corpora were also analyzed in terms of the actual expressions speakers used to mark stance in narratives of emotional expression (see Appendices 10 and 11 for lists of stance lemmas produced by English and French monolinguals). Analysis of the English monolingual corpus revealed that the stance expressions that were used most in each category were (only the main lemma is given here; for variations of the same lemma, see Appendix 10): *I remember* (42 tokens), *just* (214 tokens), *I think* (91 tokens), *kind of* (73 tokens), and the predictive modal *will* (172 tokens). These markers accounted for 39.9% of the stance corpus. Other markers that appeared at least 10 times in the corpus were (in decreasing frequency for each stance category):

- Certainty evidentials: *I know that, of course, actually,*
- Emphatics: *very, really, so, a lot, more, the whole,*

- Doubt evidentials: *I didn't know, I guess, probably, I feel that, I mean, it seems like,*
- Hedges: *like, a little, sort of, pretty, almost,*
- Modals: possibility modal *can*.

These, combined with the most frequently used expressions, accounted for 90% of all stance tokens in the corpus.

When positive and negative emotion narratives were considered separately, stance markers that were used most in the positive narratives were *I remember, just, I think, like,* and *will* (272 tokens, 38.1% of the positive emotion narratives stance corpus) and those used most in the negative narratives were *I remember, just, I think, kind of,* and *will* (322 tokens, 41.8% of the negative emotion narrative stance corpus). Other expressions that appeared at least 10 times in the positive emotion narrative corpus were (in decreasing frequency for each stance category):

- Certainty evidentials: *I know, of course,*
- Emphatics: *very, so,really, a lot,*
- Doubt evidentials: *I don't know, I mean,I guess*
- Hedges: *kind of, a little, sort of, pretty,*
- Modals: possibility modal *can*.

These, combined with the ones most frequently used in the positive narratives, accounted for 84% of all stance tokens in the positive emotion narratives. In the negative emotion narratives, other expressions that appeared at least 10 times were (in decreasing frequency for each stance category):

- Certainty evidentials: *actually, I know,*
- Emphatics: *really, very, a lot,*

- Doubt evidentials: *I guess, probably, I don't know, I feel that,*
- Hedges: *like, sort of,*
- Modals: possibility modal *can*.

These, combined with the ones that were most frequently used in the negative narratives, accounted for 83% of all stance tokens in the negative emotion narratives. Examples of how some of these stance markers were used in narratives of English monolinguals are shown in Example 20.

Example 20

(a) And I'd never, *I don't think* I've ever been that close to a baby before.
(b) And, it was a big, long word to me, so *I remember* that was extremely exciting and happy.
(c) I was *very* happy, *very* satisfied…
(d) So, um, it was *very kinda* warm and fuzzy feeling, um.
(e) *I don't remember* essentially much else, other than *really, really* disappointed, and, and, I still am extraordinarily disappointed…
(f) Uh, *I guess*, frustrated, frustrated that this is a problem that he's never been willing to deal with, so yeah, *just* frustrated, *kind of* fatalistic, *kind of* thinking that this*'ll*, you know, that this*'ll* never change.
(g) *I think* that's *probably* one of the…madest times…
(h) …but I was *so* mad.
(i) Beyond that, I was, *I felt certain that* I, you know, the pregnancy *would* go full term and that I *wouldn't* have *too much* trouble.
(j) …surprised, proud, *of course*, happy, hopeful, *of course*, and…*I guess, a little* scared that if it doesn't work out again, that's twice, what's gonna happen to her after everything, uh…

Analysis of the French monolingual corpus revealed that the most frequently used stance markers were *en fait, vraiment, je sais pas, un peu,* and *pouvoir*, which were used 322 times, in both positive and negative emotion narratives combined, accounting for 41.1% of the stance corpus (see Appendix 11). Other expressions that appeared at least 10 times in the corpus were (in decreasing frequency for each stance category):

- Certainty evidentials: *justement, je sais que, je crois que, je trouve que,*
- Emphatics: *beaucoup, très, trop, plus, super,*
- Doubt evidentials: *peut-être, je pense que,*
- Hedges: *assez*
- Modals: *vouloir, devoir*.

These expressions, combined with the ones that were most frequently used, accounted for 83.8% of all stance tokens in the corpus. When positive and negative emotion narratives were considered separately, the expressions that were used most in the positive emotion narratives were *en fait, je sais que, assez, vraiment,* and *pouvoir* (147 tokens, 38.3% of the positive narrative stance corpus) and those that were used most in the negative emotion narratives were *en fait, vraiment, je sais que, un peu,* and *pouvoir* (175 tokens, 43.8% of the negative narrative stance corpus). Other expressions that appeared at least 10 times in the positive emotion narrative corpus were (in decreasing frequency for each stance category):

- Certainty evidentials: *justement,*
- Emphatics: *très, beaucoup, super,*
- Doubt evidentials: *je pense que, peut-être, un peu.*

These expressions, combined with the ones that were most frequent in the positive narratives, accounted for 69.8% of all stance tokens in the positive emotion narratives. In the negative emotion narratives, other expressions that appeared at least 10 times were(in decreasing frequency for each stance category):

- Emphatics: *beaucoup, très, trop,*
- Doubt evidentials: *peut-être, je pense que,*
- Hedges: *assez*

- Modals: *vouloir, devoir*.

These expressions, combined with the ones that were most frequent in the negative narratives, accounted for 77.3% of all stance tokens in the negative emotion narratives. Examples of how some of these stance markers were used in narratives of French monolinguals are shown in Example 21.

Example 21

(a) Euh, 'fin, *beaucoup* de fierté, ouais, de *pouvoir* leur dire, 'fin, auprès de mes amis, mes amis proches surtout, euh…
(b) C'était *vraiment*…un moment de bien-être et de bonheur.
(c) Après, dire que c'était le bonheur total, *je sais pas*.
(d) …et *je pense que* mon entourage le ressent et j'aime bien décrire *justement* ce que, ce que je ressens, eum.
(e) *En fait*, je m'y attendais *pas du tout*, donc, j'étais surprise, mais, euh, *vraiment*, euh, *très, très* heureuse, quoi.
(f) Et, euh, moi, *je trouve que* pour un artiste, faire du acapella, c'est quelque chose de bien…
(g) Oui ! *Je pense qu'*on est revenu ravie toutes les deux et on l'a dit après, quand on est revenu.
(h) Ben, le…*peut-être* le sentiment de s'aggrandir, quoi…
(i) Au bac, *en fait*, j'ai eu des *super* mauvaises notes en anglais.
(j) Bon, moi, en général, je, je, je pleure *assez* facilement aussi.
(k) *Je sais pas*, *plutôt* de l'indignation, *en fait*.

In terms of the categories of stance used by the monolingual groups, as seen in Table 17 and Figure 9, English speakers preferred (in decreasing order of proportion of tokens): (1) emphatics, (2) modals, (3) evidentials: doubt, (4) hedges, and (5) evidentials: certainty. French speakers, on the other hand, preferred: (1) emphatics, (2) evidentials: certainty, (3) evidentials: doubt, (4) hedges, and (5) modals. Example 22 shows use of these markers for English monolinguals, and Example 23 for French monolinguals.

Example 22

(1) Emphatics: I was the first daughter in my family to have a child, and it was *just*, this overwhelming sense of responsibility, but also, *just, just* happiness and joy and pride.
(2) Modals: Biology *would* not let me stay childless…
(3) Evidentials – doubt: So, um, *we didn't know* exactly when the doctor arrived.
(4) Hedges: So that was *kinda* neat, and then, just to have the baby was…
(5) Evidentials – certainty: Oh, *absolutely* joy, *definitely* satisfaction.

Example 23

(1) Emphatics: Mais la première année de fac, c'était *vraiment*, euh, *très* intense.
(2) Evidentials – certainty: Donc, voilà, et *en fai*t, *je crois que* c'est une des fois où je me suis sentie hyper contente.
(3) Evidentials – doubt: Voilà, euh, colère, *je sais pas*, franchement, *chais pas*.
(4) Hedges: Eum, donc là, ça m'a *un peu* prise par surprise, dans le sens où lui était au courant que sa santé déclinait mais il- a pas jugé utile de nous en informer.
(5) Modals: C'était surtout de la joie, de *pouvoir* le partager avec eux…

Interestingly, both groups favored emphatics, above all other stance markers, suggesting, not only the presence of certainty about their propositions, but also strong intensity, reliability and involvement with the topic of their propositions, as noted by Biber and Finegan (1989), Quirk et al. (1985), Holmes (1984) and Chafe (1982). This may further suggest that the speakers in both groups, whether they are telling stories of positive or negative emotional experiences, want to convince the listener that the content of their experience (i.e., what they felt), the source of their experience (i.e., whether it was based on belief, evidence, hypothesis or verbal reports) and the mode of their experience (i..e, whether it was a belief, deduction, induction, or hearsay) are reliable and truthful. Speakers want to involve the listener into their experience, in order to build solidarity, so that their emotions may be justified and approved by the listener.

This interpretation is further evidenced by the fact that the second choice of stance markers was certainty evidentials for the French group, and modals for the English group. For this latter group, when modals were broken down into subcategories of

predictive, possibility and necessity modals (see Appendix 10), the predictive modal *will*, suggesting certainty, came on top of the list with 172 tokens, or 57.3% of all modal tokens in the English corpus.

Doubt evidentials and hedges were the next categories for both groups (for the French group, the proportion of hedges and modals were comparable). An interesting finding is that although hesitation about what to say (or how to tell the story) and how to explain the emotions felt (which is related to choice of emotion words) was clearly evident in the omnipresence of the particles *um/uh* in English, and *euh/eum* in French, and the multiple pauses during the narratives for some speakers, once the propositions were stated, there was less hesitation or uncertainty about the reliability and truthfulness of their propositions. In other words, hesitation was present in the lexical choice of emotion words, but as far as performing discourse, hesitation/uncertainty was not marked as the primary stance.

Finally, the last choice of stance markers for the English group was certainty evidentials and modals for the French group. For English speakers, we see that although certainty was the preferred stance feature, they specifically favored emphatic particles. Nouns, adjectives, verbs, and adverbs signaling certainty were not as common, to the point where the proportion of hedges and doubt evidentials was greater. This was not the case for the French group, who favored both emphatics and certainty evidentials as primary stance markers. For the French group, the use of the modals *pouvoir, devoir* and *vouloir* was minimal overall, compared to its abundance in the English corpus, but we see that the proportion of these modals (all marking doubt) is comparable to the proportion of hedges and a little smaller than that of doubt evidentials. For the French group, it is clear that stance is marked preferably through certainty evidentials first, then doubt evidentials.

As a summary, we see that the lemmas *I remember, just, I think, kind of,* and *will* were the most frequently used in the English monolingual corpus and *en fait, vraiment, je sais pas, un peu,* and *pouvoir* were the most used in the French monolingual corpus. In terms of stance categories, both English native speakers and French native speakers

favored emphatics as the first choice among stance categories, marking certainty, commitment, and reliability of the propositions uttered, as well as involvement and solidarity of the listener.

To sum up, from both quantitative and qualitative analyses, we identified three important aspects when comparing the two monolingual corpora:

- They differed in terms of proportion of stance lemmas and tokens: English monolinguals produced significantly more lemmas and tokens than French monolinguals, and the difference was also significant when positive and negative emotion narratives were analyzed separately.
- They differed in the distribution of stance markers across the subcategories of evidentials: English speakers favored: (1) emphatics, (2) modals, (3) evidentials: doubt, (4) hedges, and (5) evidentials: certainty, whereas French speakers preferred: (1) emphatics, (2) evidentials: certainty, (3) evidentials: doubt, (4) hedges, and (5) modals.
- From a qualitative analysis, although the two groups preferred the certainty stance in their discourse, they differed in terms of the lexical and grammatical choices of marking that stance: although both groups favored emphatics the most, English speakers did not prefer certainty evidentials as stance markers, whereas French speakers chose certainty evidentials as their second choice of stance markers. Moreover, modals, all marking doubt in French, were not a favorite category for French speakers, whereas for English speakers, modals came in as second choice, especially with the predictive modal *will*, marking certainty.

6.4 RESULTS OF THE BILINGUAL/LEARNER CORPORA

6.4.1 Quantitative analysis

Table 18 summarizes the comparison of the L2 French bilingual (i.e., American learners of French) and L2 English bilingual (i.e., French learners of English) corpora in terms of the proportion of stance lemmas and tokens.

Speakers	Narratives	Number of Words	Number of Stance Lemmas	Number of Stance Tokens
Eng Mono (20)	Positive	12,204 M = 610.2	54 M = 14.3 SD = 5	713 M = 35.7 SD = 19.6
	Negative	14,326 M = 716.3	63 M = 15.2 SD = 6.5	771 M = 37.5 SD = 24.2
	Total	**26,530** **M = 1,326.5**	**71** **M = 22.5** **SD = 6.5**	**1,484** **M = 74.2** **SD = 40.4**
L2 Eng Biling (18)	Positive	5,054 M = 297.3	46 M = 10.6 SD = 3	378 M = 21 SD = 10.1
	Negative	6,964 M = 386.9	50 M = 10.2 SD = 4.5	368 M = 20.4 SD = 12.5
	Total	**12,018** **M = 1,326.5**	**59** **M = 16.2** **SD = 4.3**	**746** **M = 41.4** **SD = 17.3**
Fren Mono (19)	Positive	7,744 M = 407.6	56 M = 10.2 SD = 4	384 M = 20.2 SD = 14
	Negative	9,993 M = 525.9	52 M = 10.2 SD = 5.1	400 M = 21.1 SD = 4.9
	Total	**17,737** **M = 933.5**	**72** **M = 16.7** **SD = 6.3**	**784** **M = 41.3** **SD = 24.1**
L2 Fren Biling (13)	Positive	3,889 M = 299.2	35 M = 7.2 SD = 2.9	160 M = 12.3 SD = 6.4
	Negative	5,125 M = 394.2	39 M = 8.8 SD = 4.8	217 M = 16.7 SD = 10.9
	Total	**9,014** **M = 693.4**	**54** **M = 13.2** **SD = 5.3**	**377** **M = 29** **SD = 17**

Table 18. Comparison of stance lemmas and tokens between monolinguals and bilinguals

With regards to the proportion of stance lemmas, the bilinguals' total narratives contained a smaller number of stance lemmas than the monolinguals' total narratives. L2 English bilinguals produced an average of 16.2 stance lemmas, compared to 22.5 lemmas by English monolinguals. L2 French bilinguals produced an average of 13.2 stance lemmas, compared to 16.7 by French monolinguals. An ANOVA revealed a significant main effect of group for the proportion of stance lemmas ($F(3, 66) = 7.94$, $p = .0001$), such that the L2 learners significantly used fewer lemmas than the monolingual speakers. This pattern was held consistently for positive emotion narratives ($F(3, 66)= 8.9$, $p = 4.95E-05$) and negative emotion narratives ($F(3, 66) = 5.06$, $p = .003$). Subsequent Scheffé post-hoc group-wise comparisons revealed significant differences between the English monolingual group and the L2 English bilingual group ($p = .01$) and the French monolingual group ($p = .03$), as well as with the L2 French bilingual group ($p = .00$) for total narratives. For positive emotion narratives, significant differences were found between the English monolingual group and the L2 English bilingual group ($p = .05$) and the French monolingual group ($p = .02$), as well as the L2 French bilingual group ($p = .000$). For negative emotion narratives, significant differences were found between the English monolingual group and the L2 English bilingual group ($p = .04$) and the French monolingual group ($p = .04$), as well as the L2 French bilingual group ($p = .02$).

As to nativelikeness, 3 L2 English bilinguals and 3 L2 French bilinguals, i.e., 6 out of the total 31 bilinguals (19.4%) performed nativelike or near-nativelike. Whereas English monolinguals used an average of 22.5 lemmas and French monolinguals, an average of 16.7 lemmas, the best performing L2 English ilinguals used between 21 and 25 lemmas, and L2 French bilinguals between 16 and 21 lemmas.

When L2 English and L2 French bilinguals were compared, L2 English bilinguals produced more lemmas and tokens than L2 French bilinguals (M = 59 vs. M = 54 for lemmas, M = 41.4 vs. M = 29 for tokens), following the results of English and French monolinguals, but the difference was not significant, neither for stance lemmas ($t = 1.64$, $df = 23$, $p = .11$), nor for stance tokens ($t = 2$, $df = 26$, $p = .06$). In separate analyses of

positive and negative emotion narratives, interesting results were found. In positive emotion narratives, L2 English bilinguals produced significantly more stance lemmas than L2 French bilinguals (M = 10.6 vs. M = 7.2, respectively) (t = 3.08, df = 26, p = .005), and also significantly more stance tokens (M = 21 vs. M = 12.3) (t = 2.92, df = 29, p = .007). However, in negative emotion narratives, although L2 English bilinguals did produce more stance lemmas and tokens than L2 French bilinguals (M = 10.2 vs. M = 8.8, respectively for lemmas; M = 20.4 vs. M = 16.7, respectively for tokens), the differences were not significant (t = .77, df = 27, p = .45 for lemmas; t = .89, df = 28, p = .38).

Regarding the proportion of stance tokens, similar results were found in that L2 bilinguals produced fewer stance tokens than their respective monolingual groups. L2 English bilinguals produced an average of 41.4 stance tokens, compared to 74.2 tokens by English monolinguals. L2 French bilinguals produced an average of 29 tokens, compared to 41.3 tokens by French monolinguals. An ANOVA revealed a significant difference between the groups for the proportion of stance tokens ($F(3, 66) = 8.81$, $p = 5.43E-05$). Similar to stance lemmas, this pattern was held consistently for positive emotion narratives ($F(3, 66) = 8.27$, $p = 9.49E-05$) and negative emotion narratives ($F(3, 66) = 5.36$, $p = .002$). Scheffé post-hoc group-wise comparisons revealed significant differences between the English monolingual group and the L2 English bilingual group (p = .006) and the French monolingual group (p = .005), as well as the L2 French bilingual group (p = .00), but not between any other pairs of groups for total narratives. For positive emotion narratives similarly, significant differences were found between the English monolingual group and the L2 English bilingual group (p = .03) and the French monolingual group (p = .04), as well as the L2 French bilingual group (p = .01). For negative emotion narratives, significant differences were found again between the English monolingual group and the L2 English bilingual group (p = .03) and the French monolingual group (p = .04), as well as the L2 French bilingual group (p = .01).

With respect to nativelike performance, one L2 English and 3 L2 French bilinguals, i.e., 4 bilinguals out of 31 (12.9%) performed in the native range with a mean number of tokens similar to or greater than the monolinguals'. Whereas the English monolinguals used an average of 74.2 stance tokens, the best performing L2 English bilingual used an average of 74 tokens. The French monolinguals used an average of 41.3 tokens, and the best performing L2 French bilinguals used between 43 and 69 tokens.

Table 19 summarizes the results in terms of the influence of L2 proficiency on the proportion of stance lemmas and tokens.

Speakers	**L2 Proficiency**	**Number of Words**	**Number of Stance Lemmas**	**Number of Stance Tokens**
Eng Mono (20)	-	26,530 M = 1,326.5	71 M = 22.5	1,484 M = 74.2
L2 Eng Biling (18)	Intermediate (6)	3,668 M = 611.3	41 M = 6.8	213 M = 35.5
	High (12)	8,350 M = 695.8	58 M = 4.8	520 M = 43.3
Fren Mono (19)	-	17,737 M = 933.5	72 M = 16.7	784 M = 41.3
L2 Fren Biling (13)	Intermediate (5)	3,568 M = 713.6	35 M = 7	157 M = 31.4
	High (8)	5,446 M = 680.8	41 M = 5.1	225 M = 28.1

Table 19. Results by L2 Proficiency in the narrative corpora

For the L2 English group, highly proficient L2 English bilinguals produced more stance tokens than intermediate level bilinguals (M = 43.3 vs. M = 35.5), but produced less stance lemmas than the latter group (M = 4.8 vs. M = 6.8), but the differences were not significant, neither for the lemmas (t = 0, df = 9, p = 1), nor for the tokens (t = -1.18, df = 14, p = .26). For the L2 French group, highly proficient L2 French bilinguals actually produced fewer stance lemmas and tokens than the intermediate group (M = 5.1 vs M = 7 for lemmas; M = 28.1 vs. M = 31.4 for tokens). Again, the differences were not significant, neither for the lemmas (t = 1.78, df = 5, p = .14), nor for the tokens (t = .36, df

= 9, p = .72). In sum, L2 proficiency did not affect the use of stance lemmas and tokens in emotion narratives.

Table 20 summarizes the results in terms of the influence of L2 use on the proportion of stance lemmas and tokens.

Speakers	**L2 Use**	**Number of Words**	**Number of Stance Lemmas**	**Number of Stance Tokens**
Eng Mono (20)	-	26,530 M = 1,326.5	71 M = 22.5	1,484 M = 74.2
L2 Eng Biling (18)	Low (6)	3,332 M = 555.3	46 M = 7.7	228 M = 38
	Medium (6)	3,350 M = 558.3	40 M = 6.7	210 M = 35
	High (6)	5,336 M = 889.3	46 M = 7.7	348 M = 58
Fren Mono (19)	-	17,737 M = 933.5	72 M = 16.7	784 M = 41.3
L2 Fren Biling (13)	Low (10)	7,306 M = 730.6	51 M = 5.1	290 M = 29
	Medium (3)	1,708 M = 569.3	26 M = 8.7	91 M = 30.3
	High (0)	0	0	0

Table 20**.** Results by amount of L2 use in the narrative corpora

Regarding stance lemmas, no difference was found in the L2 English bilingual group ($F(2, 15 = 2.62$, $p = .11$), nor in the L2 French bilingual group ($t = .49$, $df = 9$, $p = .64$). Regarding stance tokens, again, no difference was found in the L2 English bilingual group ($F(2, 15) = 3.22$, $p = .07$), nor in the L2 French bilingual group ($t = -.12$, $df = 10$, $p = .91$). In sum, L2 use did not have affect the use of stance lemmas and tokens.

With regards to the bilinguals' choice of stance categories, Table 21 and Figure 10 show that both groups of bilinguals conformed to the choice of native speakers of their respective languages by favoring emphatics as stance markers.

Speakers	Narratives	Evidentials: Certainty	Emphatics	Evidentials: Doubt	Hedges	Modals
Eng Mono (20)	Positive	94 (13.2%)	264 (37%)	104 (14.6%)	125 (17.5%)	126 (17.7%)
	Negative	79 (10.2%)	279 (36.2%)	135 (17.5%)	104 (13.5%)	174 (22.6%)
	Total	**173 (11.7%)**	**543 (36.6%)**	**239 (16.1%)**	**229 (15.4%)**	**300 (20.2%)**
L2 Eng Biling (18)	Positive	41 (10.8%)	170 (45%)	56 (14.8%)	67 (17.7%)	44 (11.6%)
	Negative	37 (10.1%)	144 (39.1%)	69 (18.8%)	45 (12.2%)	73 (19.8%)
	Total	**78 (10.5%)**	**314 (42.1%)**	**125 (16.8%)**	**112 (15%)**	**117 (15.7%)**
Fren Mono (19)	Positive	104 (27.1%)	165 (43%)	50 (13%)	32 (8.3%)	33 (8.6%)
	Negative	78 (19.5%)	143 (35.8%)	68 (17%)	56 (14%)	55 (13.8%)
	Total	**182 (23.2%)**	**308 (39.3%)**	**118 (15.1%)**	**88 (11.2%)**	**88 (11.2%)**
L2 Fren Biling (13)	Positive	22 (13.8%)	80 (50%)	21 (13.1%)	16 (10%)	21 (13.1%)
	Negative	47 (21.7%)	73 (33.6%)	37 (17.1%)	26 (12%)	34 (15.7%)
	Total	**69 (18.3%)**	**153 (40.6%)**	**58 (15.4%)**	**42 (11.1%)**	**55 (14.6%)**

Table 21. Comparison of stance categories between monolinguals and bilinguals

Overall, L2 English bilinguals used more emphatics (42.1% of all stance tokens), following the pattern of English monolinguals (36.6%) and L2 French bilinguals also used more emphatics (40.6% of all stance tokens), following the pattern of French monolinguals (39.3%). Chi-square tests revealed that for both groups of bilinguals, the difference in frequency of use of each stance category was highly significant ($\chi^2 = 236.1$, df = 4, $p < .05$ for L2 English bilinguals, $\chi^2 = 104.7$, df = 4, $p < .05$ for L2 French bilinguals).

Even when positive and negative emotion narratives are considered separately, the pattern was held consistently, with L2 English bilinguals using emphatics the most in positive (45%) and negative (39.1%) emotion narratives, and L2 French bilinguals also

using emphatics the most in positive emotion narratives (50%) and negative emotion narratives (33.6%).

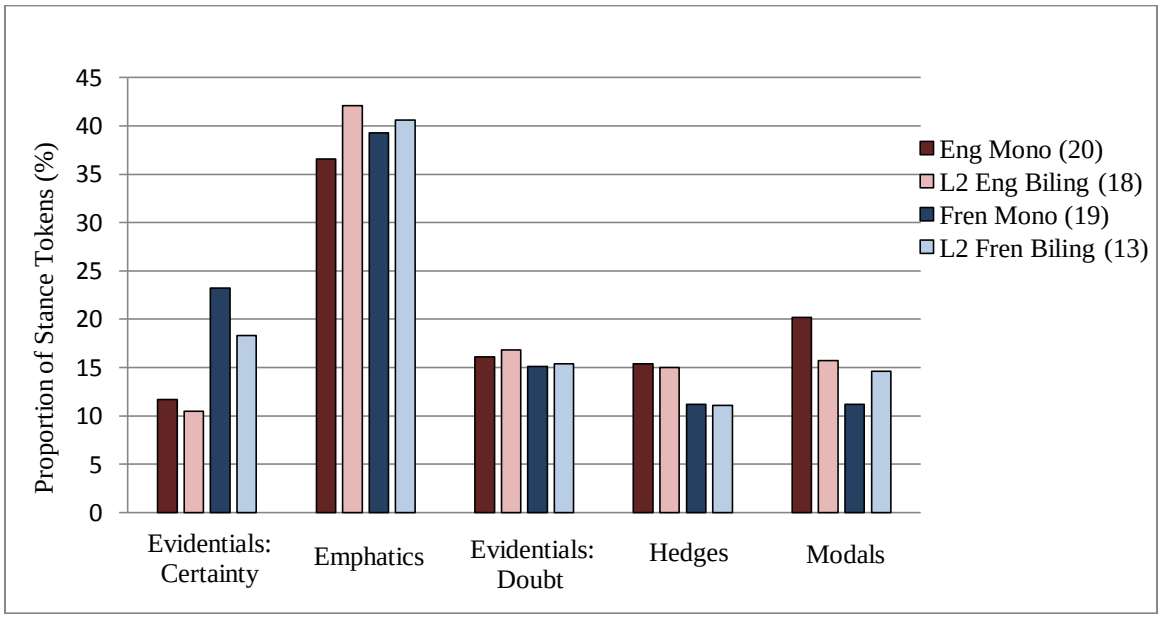

Figure 10. Comparison of stance categories for monolinguals and bilinguals (for both types of positive and negative emotion narratives combined)

With regards to nativelike performance, 11 L2 English bilinguals and 7 L2 French bilinguals, i.e., 18 bilinguals out the total 31 (58.1%) performed nativelike by selecting emphatics as the most used stance marker. Whereas English monolinguals used 36.6% emphatics out of all stance tokens, L2 English bilinguals' use of emphatics ranged between 35.2% and 60.9%. French monolinguals used 39.3% emphatics and L2 French bilinguals' use ranged between 40.5% and 76.9%.

However, we found some interesting results when we considered the rest of the categories. On the one hand, L2 French bilinguals showed a consistent pattern in the order of frequency of use of each category in the positive, negative, and total emotion narratives. Emphatics were the first choice for stance marking (50% in the positive

narratives, 33.6% in the negative narratives, 40.6% in total narratives), certainty evidentials came in second (13.8% for positive narratives, 21.7% for negative narratives, 18.3% for total narratives), doubt evidentials came in third (13.1% for positive narratives, 17.1% for negative narratives, 15.4% for total narratives), and finally, modals (13.1% for positive narratives, 15.7% for negative narratives, 14.6% for total narratives) and hedges (10% for positive narratives, 12% for negative narratives, 11.1% for total narratives) came in as the last choices. This order of preference followed exactly the order of preference of the French monolinguals, thus showing a nativelike pattern.

On the other hand, L2 English bilinguals' choice of stance categories did not conform to the native speakers' pattern of preference, neither in the positive emotion narratives, nor in the negative emotion narratives. Overall, based on the total narratives, although emphatics were the first choice of stance marking (42.1%), doubt evidentials came in as second choice (16.8%), then, modals (15.7%), hedges (15%) and certainty evidentials (10.5%). When modals were broken down into subcategories, the possibility modal *can*, marking doubt, appeared 71 times, accounting for 60.7% of all modals in that corpus, whereas the predictive modal *will*, marking certainty, appeared only 38 times, accounting for 32.5% of all modals. As we had seen in the monolingual corpora, English monolinguals preferred emphatics, modals (with those marking certainty having the greater frequency of occurrence), doubt evidentials, hedges, then certainty evidentials last.

When positive and negative emotion narratives were considered separately, variation was still evident on the choice of categories. In the positive narratives, emphatics were again the first choice (45%), then, hedges (17.7%), doubt evidentials (14.8%), modals (11.6%, with the doubt modal *can* accounting for 61.4% of all modals in the corpus, and the certainty modal *will* accounting for 31.8% of all modals), and certainty evidentials (10.8%). In the negative narratives, emphatics were also the first choice (39.1%), then, modals (19.8%, with the doubt modal *can* accounting for 60.3% of all modals in the corpus, and the certainty modal *will* accounting for 32.9% of all modals), doubt evidentials (18.8%), hedges (12.2%), and certainty evidentials (10.1%).

So, overall, L2 English bilinguals, as a group, did not conform to the pattern of the native speakers of English. In sum, with regards to nativelikeness, 4 L2 French bilinguals followed the pattern of French monolinguals in favoring emphatics, certainty evidentials, doubt evidentials, modals and hedges. Only one L2 English bilingual followed the English monolingual pattern of preference for emphatics, modals, doubt evidentials, hedges, and certainty evidentials. In total, 5 out 31 bilinguals (16.1%) performed nativelike.

This difference in pattern between L2 French and L2 English bilinguals was held consistently when considering the first languages of the bilinguals (see Appendices 14 for stance lemmas for L1 English and Appendices 15 for L1 French). Given the bilinguals' extended LOR and the late AOA in the L2 country, it is reasonable to expect an L2 transfer on L1 such that L1 English bilinguals might approximate the behavior of French monolinguals and L1 French bilinguals might approximate the behavior of English monolinguals. However, this was not the case in our corpus. From Table 22 and Figure 11 (on the next page), we see that both L2 French bilinguals and L1 French bilinguals conformed to the French monolingual pattern of use of stance categories by using more emphatics as the first choice for stance marking (40.6% in L2 French bilinguals' total narratives, 38.8% in L1 French bilinguals' total narratives, and 39.3% in French monolinguals' total narratives), followed by a similar order of preference for all three French groups, i.e., certainty evidentials, doubt evidentials, modals (for L1 French bilinguals, modals came before doubt evidentials, which will be explained in the qualitative analysis), and hedges, in the total narratives, as well as in positive and negative emotion narratives. Similar to the L2 French bilinguals, the distribution of these categories for L1 French bilinguals was significant ($\chi^2 = 164.8$, df = 4, $p < .05$).

Speakers	Narratives	Evidentials: Certainty	Emphatics	Evidentials: Doubt	Hedges	Modals
Fren Mono (19)	Positive	104 (27.1%)	165 (43%)	50 (13%)	32 (8.3%)	33 (8.6%)
	Negative	78 (19.5%)	143 (35.8%)	68 (17%)	56 (14%)	55 (13.8%)
	Total	**182 (23.2%)**	**308 (39.3%)**	**118 (15.1%)**	**88 (11.2%)**	**88 (11.2%)**
L2 Fren Biling (13)	Positive	22 (13.8%)	80 (50%)	21 (13.1%)	16 (10%)	21 (13.1%)
	Negative	47 (21.7%)	73 (33.6%)	37 (17.1%)	26 (12%)	34 (15.7%)
	Total	**69 (18.3%)**	**153 (40.6%)**	**58 (15.4%)**	**42 (11.1%)**	**55 (14.6%)**
L1 Fren Biling (18)	Positive	73 (25.6%)	99 (34.7%)	33 (11.6%)	38 (13.3%)	42 (14.7%)
	Negative	69 (21.9%)	134 (42.5%)	31 (9.8%)	31 (9.8%)	50 (15.9%)
	Total	**142 (23.7%)**	**233 (38.8%)**	**64 (10.7%)**	**69 (11.5%)**	**92 (15.3%)**

Table 22. Stance categories in the French narrative corpora

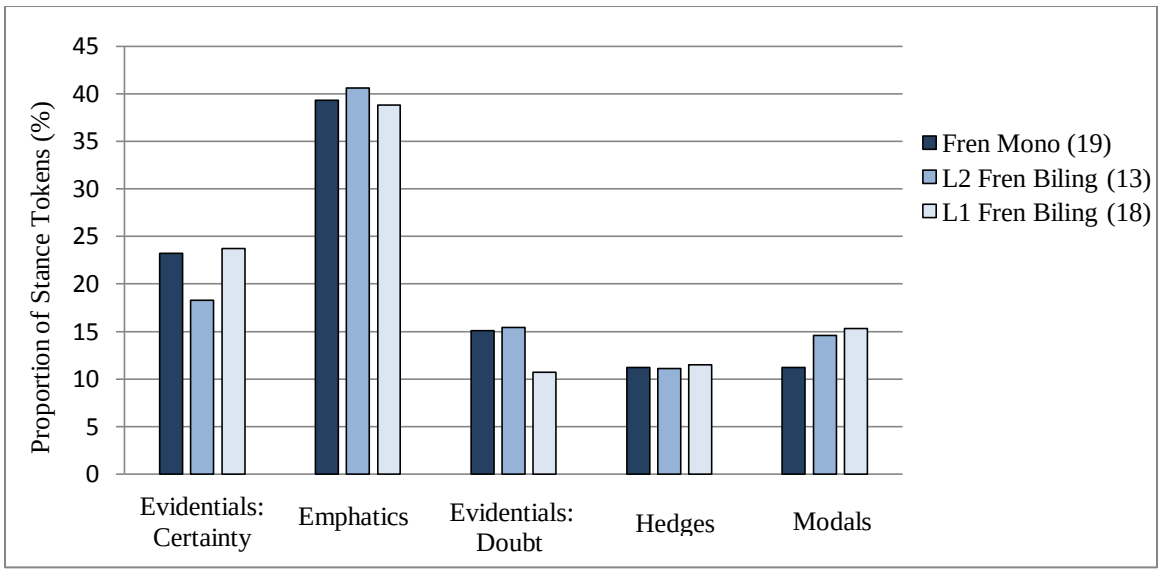

Figure 11. Comparison of stance categories in the French narrative corpora

For the English narrative corpora (see Table 23 and Figure 12 on the next and following pages), both L2 English bilinguals and L1 English bilinguals did use more

emphatics as the first choice for stance marking, following the English monolingual pattern (41.2% in L2 English bilinguals' total narratives, 40.6% in L1 English bilinguals' total narratives, and 36.6% in English monolinguals' total narratives). However, as seen in the results for L2 English bilinguals for the rest of the categories, L1 English bilinguals did not conform completely to the English monolingual pattern for the rest of the categories. They actually behaved more like L2 English bilinguals than they did English monolinguals. The order of frequency of use of stance categories for L1 English bilinguals was emphatics (40.6%), doubt evidentials (17.8%), hedges (17%), modals (14.1%, with the certainty modal *will* accounting for 47.4% of all modals in the corpus and the doubt modal *can* accounting for 41% of all modals), certainty evidentials (10.5%), whereas for L2 English bilinguals, it was emphatics (42.1%), doubt evidentials (16.8%), modals (15.7%, with the doubt modal *can* accounting for 60.7% of all modals in the corpus and the certainty modal *will* accounting for 32.5% of all modals), hedges (15%), and certainty evidentials (10.5%). However, the distribution of stance markers across categories for L1 English bilinguals was significant ($\chi^2 = 155.1$, df = 4, $p < .05$).

Speakers	**Narratives**	**Evidentials: Certainty**	**Emphatics**	**Evidentials: Doubt**	**Hedges**	**Modals**
Eng Mono (20)	Positive	94 (13.2%)	264 (37%)	104 (14.6%)	125 (17.5%)	126 (17.7%)
	Negative	79 (10.2%)	279 (36.2%)	135 (17.5%)	104 (13.5%)	174 (22.6%)
	Total	**173 (11.7%)**	**543 (36.6%)**	**239 (16.1%)**	**229 (15.4%)**	**300 (20.2%)**
L2 Eng Biling (18)	Positive	41 (10.8%)	170 (45%)	56 (14.8%)	67 (17.7%)	44 (11.6%)
	Negative	37 (10.1%)	144 (39.1%)	69 (18.8%)	45 (12.2%)	73 (19.8%)
	Total	**78 (10.5%)**	**314 (42.1%)**	**125 (16.8%)**	**112 (15%)**	**117 (15.7%)**
L1 Eng Biling (13)	Positive	21 (8.8%)	112 (47.1%)	34 (14.3%)	35 (14.7%)	36 (15.1%)
	Negative	37 (11.8%)	112 (35.7%)	64 (20.4%)	59 (18.8%)	42 (13.4%)
	Total	**58 (10.5%)**	**224 (40.6%)**	**98 (17.8%)**	**94 (17%)**	**78 (14.1%)**

Table 23. Stance categories in the English narrative corpora

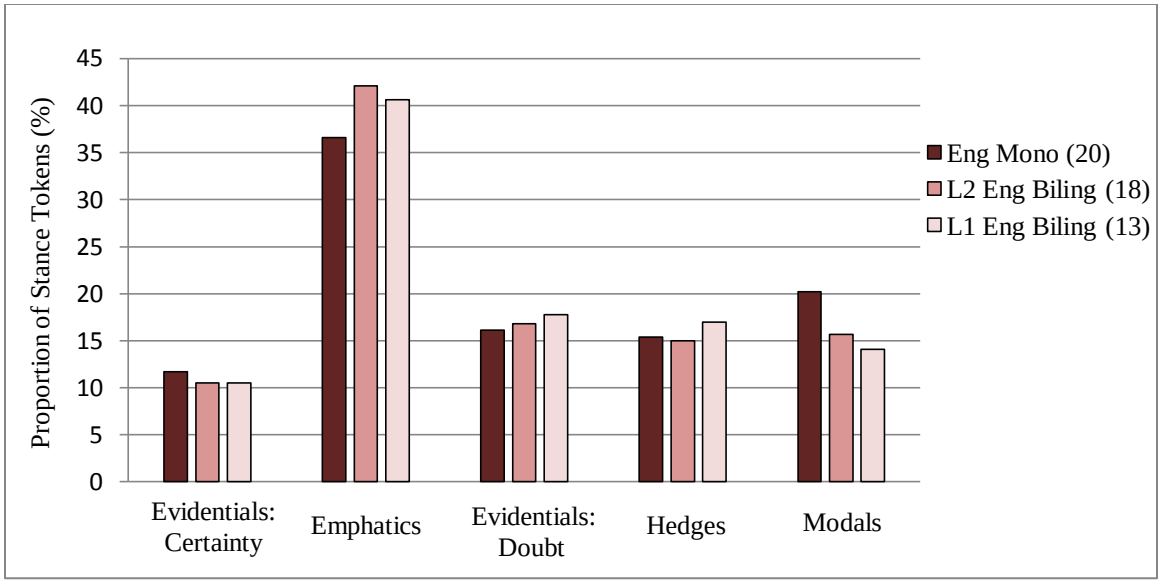

Figure 12. Comparison of stance categories in the English narrative corpora

On the other hand, the order for English monolinguals was emphatics (36.6%), modals (20.2%, with the certainty modal *will* accounting for 57.3% of all modals in the corpus and the doubt modal *can* accounting for 36% of all modals), doubt evidentials (16.1%), hedges (15.4%) , and certainty evidentials (11.7%). Discussion on this pattern of the English group will be provided in the qualitative analysis in the next section. We can say that, at least, for the French group, L2 French bilinguals may have internalized the L2 pattern of marking stance in that they conformed to the pattern of the French monolinguals, whereas L1 French bilinguals may have showed some evidence of L2 English transfer on L1 French in that the use of modals in L1 French came as third choice, compared to second for English monolinguals and last for French monolinguals.

6.4.2 Analysis of lexical choice

Appendices 12 and 13 list the stance lemmas produced by L2 English bilinguals and L2 French bilinguals, respectively. Analysis of the L2 English bilingual corpus revealed that the stance expressions that were used most in each category were (only the

main lemma is given here; for variations of the same lemma, see Appendix 12): *actually* (16 tokens), *really* (110 tokens), *I think* (30 tokens), *like* (56 tokens), and the possibility modal *can* (71 tokens). These markers accounted for 37.9% of the stance corpus. Other markers that appeared at least 10 times in the corpus were (in decreasing frequency for each stance category):

- Certainty evidentials: *I remember, I knew that,*
- Emphatics: *just, very, so, a lot,*
- Doubt evidentials: *I guess, I don't know, maybe, I mean, probably,*
- Hedges: *kind of, a little,*
- Modals: predictive modal *will*.

These, combined with the most frequently used expressions, accounted for 83.2% of all stance tokens in the L2 English bilingual corpus.

When positive and negative emotion narratives were considered separately, stance markers that were used most in the positive narratives were *actually, really, I guess, like,* and *can* (135 tokens, 35.7% of the positive emotion narratives stance corpus) and those used most in the negative narratives were *actually, really, I think, like,* and *can* (154 tokens, 39.1% of the negative emotion narrative stance corpus). Other expressions that appeared at least 10 times in the positive emotion narrative corpus were (in decreasing frequency for each stance category):

- Emphatics: *very,*
- Doubt evidentials: *I don't know,*
- Hedges: *kind of, just,*
- Modals: predictive modal *will*.

These, combined with the ones most frequently used in the positive narratives, accounted for 70.6% of all stance tokens in the positive emotion narratives. In the negative emotion

narratives, other expressions that appeared at least 10 times were: *just, very, so, I mean,* and *will* (no other certainty evidential, except for *actually*, which only appeared 5 times, and no other hedges, except for *like*, appeared at least 10 times). These, combined with the ones that were most frequently used in the negative narratives, accounted for 66.6% of all stance tokens in the negative emotion narratives. Examples of how some of these stance markers were used by L2 English bilinguals are shown in Example 24.

Example 24

(a) Well, I was *actually kinda* thrilled…
(b) …I feel very, *like, kinda* confident about myself…
(c) I have my life here, they have their lives over there, it's different, um, and *I guess,* that's it.
(d) And that *kinda* made me *really* happy.
(e) We lived in Germany at that time where we were *just* the two of us, no family, and, and it was a *very, very* happy moment and we were *very* happy to be able to actually live it, *just* the two of use, and with our daughter afterwards.
(f) *I think*, in, in Florence, it wasn't that at all because it's, you're living in something else that is not at all creative, it's *just* the past that's there with its full weight.
(g) And I *just* felt *so*…light and, and, *so*…um…relieved.
(h) And I *would* go down the roads and feeling the wind on me…
(i) And, when I realize that it was not, *I mean*, it was just waste of my time, basically.
(j) *I knew that* I was not gonna have to pay for this whole thing, we were safe…

Compared to stance lemmas used the most by English monolinguals, we found that L2 English bilinguals also used the same most frequent ones as those of monolinguals. Among the most used ones were (in decreasing frequency for each stance category):

- Certainty evidentials: *I remember, I know, actually,*
- Emphatics: *just, very, realy, so, a lot,*
- Doubt evidentials: *I think, I don't know, I guess, probably, I mean, maybe,*
- Hedges: *kind of, like, a little,*

- Modals: *will, can*.

Analysis of the L2 French bilingual corpus revealed that the most frequently used stance markers were *je crois que, vraiment, je pense que, un peu,* and *pouvoir*, which were used 159 times, in both positive and negative emotion narratives combined, accounting for 42.2% of the stance corpus (see Appendix 13). Other expressions that appeared at least 10 times in the corpus were (in decreasing frequency for each category):

- Emphatics: *très, beaucoup, juste,*
- Doubt evidentials: *je sais pas, peut-être,*
- Modals: *vouloir.*

These expressions, combined with the ones that were most frequently used, accounted for 69% of all stance tokens in the corpus.

When positive and negative emotion narratives were considered separately, the expressions that were used most in the positive emotion narratives were *je crois que, vraiment, je sais pas, un peu,* and *pouvoir*. (74 tokens, 46.3% of the positive narrative stance corpus) and those that were used most in the negative emotion narratives were *je crois, vraiment, je pense que, un peu,* and *pouvoir* (91 tokens, 41.9% of the negative narrative stance corpus). Other expressions that appeared at least 10 times in the positive emotion narrative corpus were the emphatic *très* (no other stance marker in the rest of the categories appeared at least 10 times). This latter marker, combined with the ones that were most frequent in the positive narratives, accounted for 55% of all stance tokens in the positive emotion narratives. In the negative emotion narratives, other expressions that appeared at least 10 times were: *très, beaucoup,* and *peut-être* (no other certainty evidential, no hedge, and no modal, except for the ones mentioned as most frequent, appeared at least 10 times). These expressions, combined with the ones that were most frequent in the negative narratives, accounted for 59.9% of all stance tokens in the

negative emotion narratives. Examples of how some of these stance markers were used by L2 French bilinguals are shown in Example 25.

Example 25

(a) Je voulais *vraiment* garder ce moment *très* precieux pour moi.
(b) C'était *vraiment* une soirée formidable, c'était *vraiment*, j'étais *vraiment* contente, j'étais heureuse.
(c) Le plus heureux moment de ma vie, euh, récemment, c'est mon mariage en France, il y a, il y a cinq ans ou six ans, *je crois*.
(d) C'était, euh, *chais pas*, c'était jeudi ou vendredi.
(e) Donc *j'ai voulu* apprendre la civilisation française dans toute sa variété, toutes les boissons, toute la nourriture…
(f) Donc, *je pense que* c'est une réaction physique, plus qu'autre chose.
(g) Et…j'avais *un peu* peur que, ils ne m'ont pas entendu, pace que j'étais *trop* fâchée.
(h) Et c'était deux heures le matin, *peut-être un peu plus* tôt, *je crois*.
(i) Les sons, le son de la plage, enfin la…mer, c'est quelque chose qui me plaît *beaucoup*.
(j) Ça fait du bien, de *vraiment* choisir quelque chose, *juste* pour toi, *juste* pour, euh…
(k) …j'étais *vraiment très, très* émue…

Compared to stance lemmas used the most by French monolinguals, we found that L2 French bilinguals also used the same most frequent ones as those of monolinguals. Among the most used ones are: *en fait, je crois que, je trouve que, je me souviens, le fait que, je sais pas, peut-être, je pense que, j'ai l'impression que, un peu, assez, presque, vraiment beaucoup, très, pouvoir* and *vouloir*.

In terms of the categories of stance used by the bilingual groups, as seen in Table 21 and Figure 10, L2 English bilinguals preferred (in decreasing order of proportion of tokens): (1) emphatics, (2) doubt evidentials, (3) modals, (4) hedges, and (5) certainty evidentials. L2 French bilinguals, on the other hand, preferred: (1) emphatics, (2) certainty evidentials, (3) doubt evidential, (4) modals, and (5) hedges. Example 26 shows use of these markers for L2 English bilinguals, and Example 27 for L2 French bilinguals.

Example 26

(1) Emphatics : So, uh, that, that was *really, really* brilliant.
(2) Doubt evidentials : Um, so, at the beginning, *I guess* I was frustrated, um, and then, I didn't…and then, I felt angry.
(3) Modals : So uh, once I was back on my feet to be able to fight back, uh…I…really *would*, I was able to argue and express to him that I, I *could* not believe that he *would* not trust my…ability…
(4) Hedges : …and it's just these cities, that carry off, after, you know, they *kind of* carry you down, it's *sort of* interesting.
(5) Certainty evidentials : I re- because it was in Venezuela, *of course*, but it's after the whole exchange, I am, I remember sitting back and I'm "oh my god! I blew this guy off in Spanish!"

Example 27

(1) Emphatics : Et quand il m'a dit « Oui, vous avez une place », j'étais *super, super* content parce que, voila, c'était mon billet pour habiter en Europe.
(2) Certainty evidentials : Bon, c'est ca aussi qui était euh, ouais, *je crois*, c'est pas juste *le fait que* c'est terminé, je l'ai fait, euh, tout ça…mais c'était aussi que moi, j'ai choisi de faire ça pour moi, donc, euh, c'était bien, euh.
(3) Doubt evidentials : Et euh, cette histoire reste avec moi vingt ans après, parce que j'ai dit, c'est *peut-être* la première fois que je, que je me suis emportée comme ça. Donc voilà.
(4) Modals : …je luis dis que c'est pas son problème si c'est moi qui fait la vaisselle ! (rires). S'il *veut* tout faire, il *peut*, mais sinon, euh, s'il avait pas encore fait, moi je fais, que c'est pas à lui de me dire comment faire, quoi.
(5) Hedges : C'était *un peu* l'aventure, euh.

Just as the monolingual groups, both bilingual groups favored emphatics, above all other stance markers, suggesting that the speakers prefer to convey their stories through evidentiality, commitment, and certainty about their propositions. This was the case for both positive and negative emotion narratives. Listener involvement, justification and approval of the emotions felt were also achieved through emphatics, which were, in many cases, reinforced by repetitions of the same emphatic in describing a particular emotion (in the same utterance), as in Example 28:

Example 28

(a) …but it was *very, very*, um, it was at the same time, very happy feeling…
(b) So, uh, that, that was *really, really* brilliant.
(c) …but it was a *very, very* happy moment.
(d) It was really deeply making me happy, *very, very* much making me happy.
(e) And, um, this violence that was, that was um…that I had been…subject to made me really, *very, very* furious, mad, angry.
(f) Everybody loved my email, it was *really, really* funny.
(g) …et j'étais *vraiment, vraiment* contente (rires).
(h) Et puis que j'étais vraiment, euh, *très, très* émue, euh…
(i) Ouais, et j'étais vraiment, *très, très*, fâchée.

This commitment to the certainty and truthfulness of propositions uttered remained constant in that the second choice of stance markers for L2 French bilinguals was certainty evidentials, such as *je crois que, je trouve que, je me souviens, en fait,* and *le fait que*. Doubt evidentials, especially *je pense que, chais pas* and *peut-être*, modals (all marking doubt in French) and hedges, especially *un peu*, were the last three choices for this group of speakers. As mentioned earlier, we see that this order of preference for stance categories for L2 French bilinguals follows the pattern of French monolinguals, thus, behaving in a nativelike manner.

For L1 French bilinguals, the pattern was held somewhat consistently in that although the order certainty evidentiality – doubt evidentiality was kept constant, among the categories marking doubt evidentiality, L1 French bilinguals favored modals, instead of doubt evidentials, as did the L2 French bilingual and French monolingual groups. This preference of modals over doubt evidentials and hedges may be due a transfer of L2 English on the bilinguals' first language. The abundance of modals in the English language (compared to those in French) and its frequency of use is evidenced by the fact that English monolinguals chose modals as their second choice for stance markers. Moreover, an extended LOR in the L2 country (average of 11.2 years) by French-English bilinguals might explain this preference of modals over other doubt markers.

For the English bilingual groups, the results were not as consistent. What was consistent, however, was the fact that all L2 English bilinguals, L1 English bilinguals and English monolinguals favored emphatics as first choice and certainty evidentials, especially *actually, I remember,* and *I knew that*, as last choice. What is interesting is that whereas for the French group, certainty evidentials were highly favored as stance markers, they were not a favorite category for the English group. From the previous section on English monolinguals, we found that they marked stance through emphatics, first, then certainty modals, followed by doubt modals, then, doubt evidentials, hedges, and finally, certainty evidentials.

L2 English bilinguals, on the other hand, preferred doubt evidentials (as second place, after emphatics) over certainty modals. In fact, even for the use of modals, as we saw in the above quantitative section, doubt modals accounted for 60.7% of all modal use. This use of modals was consistent throughout the two types of narratives: whenever L2 English bilinguals used modals, either in positive emotion narratives or negative emotion narratives, the majority, or the first choice of modals was doubt modals (61.4% in the positive narratives, 60.3% in the negative narratives). So, although English monolinguals showed preference for certainty evidentiality as primary stance markers (through emphatics and certainty modals as the first two choices), L2 English bilinguals did not show such preference: except for emphatics as first choice, they chose doubt evidentiality as secondary stance markers (through doubt evidentials in total narratives, hedges in positive narratives, and doubt modals in negative narratives). This was consistent across positive and negative emotion narratives.

This may reflect doubt, hesitation or non-commitment about several different aspects, i.e., either about the reliability/truthfulness of their propositions or doubt/hesitation about how to explain the event and the emotions felt. Careful analysis of the data revealed six types of contexts in which doubt evidentiality appeared:

- Doubt about the details of the event causing the emotion or about how much detail they should give in retelling the story, as in Example 29:

Example 29

(a) I was looking for the papers where they put the names, and my best friend, Juliette, by the way, *maybe* I *should* mention that, Juliette Duchet (laughs).
(b) …we're standing in front of the list, and she saw her name. And then, *a little bit* after that, I saw mine…
(c) *I don't know* what I got.
(d) *I think* it was this summer…
(e) I was reading something, *I don't remember*.
(f) It was, it was…it was an afternoon, *probably* a rainy afternoon…*maybe* not? (laughs)
(g) Probably drank some wine, and ok, it was better (laughs).
(h) Anger, that was maybe after.
(i) …when he came back, uh, actually, the conversation was in French, strangely enough, um, *I think, probably*, it was a mixture of both. Now, looking back, *I can't remember, probably*, I was too angry.
(j) And, we left, we spent, like the whole week, only me and them…

- Before or after an emphatic or by itself in order to increase or lessen the degree of the emotion felt, as in Example 30:

Example 30

(a) …I feel, *very, like, kinda* confident about myself…
(b) At the moment, I was *kinda* like, it didn't *really* hit me.
(c) …I was *pretty*, um, confident with…'fin, I was *really*...I had a *really* good feeling, uh, how the discussion ended up…
(d) So, that *kinda* made me angry, that, "that's not fair!" (laughs).
(e) *Maybe* I wasn't angry enough. 'Cause *maybe* I would have done something about it (laughs).
(f) …but they were *probably very* skilled drivers…
(g) So, I end up traveling standing up, and I'm in pain with my arm, so, I'm *a little*, you know, on the defensive…

- Doubt about whether the narrators chose the right story, as in Example 31:

Example 31

(a) Yeah, I don't know, it's not the best example (laughs).
(b) I *may* sound somewhat crazy because I'm not gonna answer this probably in a usual way.
(c) *I think* I never really, uh, experience, um, things that make me angry, uh, at home. [Then, the narrator goes on telling a story of anger that happened at work].
(d) I'm sorry, I didn't, I *couldn't* think of something really angry.

- Doubt about whether what they said in one language matched what they said in the other language, as in Example 32:

Example 32

(a) It made me happy but it also made me *a little*, um…what did I say before?
(b) But may I say that now that I think of it, you know, and I *could* have said that also when I thought in French, you know what I'm saying? Having thought of it, you know, rehearsed the moment in French once already in my head, now that I do it again in English, you know, I, I explore a little more. So, *maybe*, that's why I don't, uh, you know, but it was, uh…

- Doubt about how to explain the emotions exactly or hesitation about finding the right word, as in Example 33:

Example 33

(a) …because it was a long process, just *like* waiting to know if I was gonna be able to, you know, *kind of* realize my dream of coming here, and um, you know, just *kinda* changing my life.
(b) Um, I felt, yeah, I was excited about, you know, the, *I guess*, the experience of, um, moving away, and, um, *kinda*, you know, meeting new people, stuff like that.
(c) …it was just, so…*I don't know*, so primal that it's difficult to put words into things like that…
(d) It felt like, *a little bit* like an accomplishment also, yeah.
(e) And I just, you know, there it was suddenly, a big shift, because *I suppose* I have lived, like under a cover […]. So, anyways, uh, and it's not something that I *could* explain, so that, I'm *probably* not answering your question but it was this sudden shift that's totally unexplainable […]. It *could*- it *couln't* be explained.
(f) And I guess, it's, uh, um…enthusiasm…

(g) Um…very happy, very energized in a very good way, um, and…*kinda* like when people are beaming, *I guess*? Like… "wow!"
(h) *I guess*, calm, at peace, my decision to come here, um…
(i) And this election, that night, was *kind of*, um, you know, you, you had won the, the prize.
(j) Yeah, you see, *I think, I think* she had, we had, we had …we had the library in common at that very moment, and it's more my world than hers […] and so, you know, there was, *I suppose*, well, *I don't know, I guess* at the very moment, it was just a library feeling, but there was also, the fact that we were together in Africa, you know… […] so, *maybe* that why I don', uh, you know, but it was, uh…
(k) It just went wild with, uh, she *sort of* misunderstood something I said, and uh, she started saying something like, uh "yeah, do TELL me I'm stupid!"
(l) I felt that *maybe* I *should* lack….if I was…if I had the time, I wanted to…*I guess*, the right thing to do *would have been* to address the issue and talk to the boss.
(m) And there were some riots and some street, street, uh, *I don't know*, street fights, between, between militants from both, you know, several different parties.

- Doubt about whether the emotions felt were justified, causing the narrators to explain why they behaved in a certain way, especially with the doubt evidential *I mean*, as in Example 34:

Example 34

(a) I think it was this summer…and I, um, *I mean*, growing up, actually, it's really interesting, growing up, I always had the feeling my father didn't, I had two brothers and one sister, and he didn't really love me the same way…[Then, the narrator goes on explaining the emotions]. And I, uh, I went to France this summer, and I found that I was finally able to kind of break the ice, because my father doesn't really, he hide all his feeling.
(b) I went to his place, I got my passport. And then, I couldn't stay like that. *I mean*, ok, I got my passport, everything's cool! No! *I mean*, it was even worse after I got my passport because I was, I was, I should have been happy, right? To get my passport. But I was…so, I was so mad, I was really upset at the people at the post office. […] *I mean*, everybody, um, makes mistakes, right? […] And uh, you know, *I mean*, he, he was, he was sorry… […] *I mean*, there IS customer service, but they don't kick a shit, you know, they don't care about customers.
(c) So, I just yell at home or, or to my parents, who have done nothing wrong (laughs), you know. *I mean*, did the scene one more time (laughs), and then, I felt a lot better.
(d) And then, yeah, I was mad at my parents, angry at them, um, I was just not really understanding what was going on, and lost, yeah. [Interviewer: did you express

those feelings to your parents?] Yeah, I did. *I mean*, it…took me some time, but I did.

(e) And when I realize that it was not, *I mean*, it was just a waste of time, basically.

(f) [The narrator talks about how he wrote a sample song for his school, as an example, and asked other teachers to write the lyrics for the main school song, but nothing happened and he felt angry]. *I mean*, I can, I can write something, uh, in seventeenth century classical style, of I can write you a rock song, uh, I'm equally comfortable in both. […] *I mean*, if you used a…the professional standards like a…from billboard magazine, in adult contemporary format, so that, like, the style of Nickelback or Kelly Clarkson, and…

For L1 English bilinguals, their order of preference for stance markers was similar to that of L2 English bilinguals, rather than English monolinguals in that, after emphatics as the first choice, they favored doubt evidentials, hedges, and modals (certainty modals came in first but the proportion was not was much greater than doubt modals: 47.3% vs. 41% of all modals), before certainty evidentials. This was consistent across positive and negative emotion narratives.

As a summary of the discussion on lexical choice for stance for L2 French and L2 English bilinguals, we see that the lemmas *je crois que, vraiment, je pense que, un peu,* and *pouvoir* were the most frequently used in the L2 French bilingual corpus, and *actually, really, I think, like,* and *can* were the most used in the L2 English bilingual corpus. In terms of stance categories, L2 French bilinguals (and L1 French bilinguals) followed the native French pattern of stance marking by favoring certainty evidentiality over doubt evidentiality, with the purpose of boosting the intensity of propositions and marking certainty, reliability and truthfulness to their stories and emotions expressed. In order of preference, the French group overall favored emphatics first, then, certainty evidentials, doubt evidentials, modals and hedges. On the other hand, the English group behaved somewhat inconsistently. Although English monolinguals favored the order emphatics, certainty modals/doubt modals, doubt evidentials, hedges, and certainty evidentials, both L2 English bilinguals and L1 English bilinguals expressed more doubt about different aspects of their propositions, as they favored doubt evidentials, doubt

modals, and hedges, right after emphatics. Certainty evidentials were the least favored choice for the English group overall.

Through these thorough comprehensive analyses, we found that, in terms of the proportion of stance lemmas and tokens, bilinguals produced significantly less lemmas and tokens than monolinguals. When L2 English and L2 French bilinguals were compared against each other, L2 English bilinguals did produce more lemmas and tokens than L2 French bilinguals but the difference was significant only for the positive emotion narratives. In terms of stance categories, whereas the French group behaved consistently throughout types of narratives (positive, negative, total) and across groups (L2 French bilinguals, L1 French bilinguals, French monolinguals), favoring emphatics, certainty evidentials, doubt evidentials, hedges, and modals, thus, emphasizing the certainty of their propositions, the English group's results were somewhat inconsistent in that neither L2 English bilinguals, nor L1 English bilinguals followed the order of preference of English monolinguals. Rather, the two groups of bilinguals behaved similarly to each other, such that after the use of emphatics, doubt evidentiality was more emphasized through doubt evidentials, doubt modals, and hedges. This pattern of favoring doubt evidentiality was consistent throughout types of narratives. After analysis of markers of doubt evidentiality, doubt was evidenced in seven aspects of the bilinguals' story-telling. In terms of nativelike performance, we conclude that the L2 French bilinguals did perform nativelike regarding stance marking, and this was the case across the whole order of preference for stance markers. L2 English bilinguals also performed nativelike, but only in certain domains, specifically, in the choice of emphatics, as first preference of stance markers, and certainty evidentials as last preference of stance markers. Also, L2 English transfer on L1 French was evidenced for L1 French bilinguals who used proportionally more modals than the French monolinguals and L2 French bilinguals.

6.5 ANALYSIS OF DISCOURSE FEATURES IN BILINGUALS' NARRATIVES OF EMOTIONS

As described in Chapter 4, the discourse features analyzed in this study included figurative language (including metaphors and idiomatic expressions), reported speech, epithets, depersonalization, and detail. These strategies are found to be common in narratives of emotions of native speakers, but non-existent or rare in non-native narratives (Rintell, 1990).

6.5.1 Figurative language

In our corpus, both English and French monolinguals used figurative language, instead of literal language, to describe how they felt about the events of the narrative. Example 35 is from the English monolingual corpus:

Example 35

(a) (talking about concerns and fears of taking care of a third baby): Now, *it's old hat*.
(b) (talking about a bad delivery experience at maternity): I have another daughter, you know, and no one really *picked up the slack* in the bad birth. […] And so, I sat in the hospital, stewing about how annoyed I was.
(c) (talking about husband leaving the shower button on and her being sprayed when she turns on the water): Another expression that I use a lot, I, I "*it fried my butt*". That is what I would say (laughs). "Really *fries my butt* when you do that!" (laughs).
(d) (talking about an argument with her daughter and how she cannot tell everything about it to her husband): Um, you know, she's…a teenager now, so, she has the attitude, normal teenagers do. And uh…(laughs), it was *the end of my straw* (laughs). […] …'cause my husband is, he's kind of funny when it comes to these things, sometimes, *he goes off the deep end* too because he's a lot like her, so (laughs). […] so, I kinda *walk a thin line* when it comes to, uh, him and her, and how do I handle this, 'cause…being fully open with him is…you know, it doesn't work to be a good thing (laughs).
(e) (talking about dealing with the tax collector and government officials): Well, because you're dealing with the state government and the sales tax people, you don't want to really get those people on your bad side or like, *send up a lot of flags*. […] So, you know, underneath, I wanted to be verbal, and, and, do a little

tie raid, but, you know, you learn when to stop talking and kind of *bite your tongue* and hold off on that stuff.

Example 36 is from the French monolingual corpus:

Example 36

(a) (talking about going to EuroDisney as adults): On arrêtait pas d'rigoler, de *se taper des fou-rires* (laughs) tout le long du séjour, en fait.
(b) (talking about her daughter's birth and seeing her for the first time): Oh, ça me donne *la chair de poule*! (laughs)
(c) (talking about his marriage and his thoughts about young people's marriage today): Aujourd'hui, je crois que les gens se, se, se, pour prendre une expression un peu, euh, triviale, *ils se prennent la tête*. Euh, nous, à l'époque, on *n'se prenait pas la tête*, on, on était euh, amoureux, on décide de faire sa vie ensemble, et ben, on se marie, et puis, c'est le bonheur.
(d) (talking about a time when she felt angry): Un qui m'a vraiment, vraiment *mis hors-de-moi*, eum, c'était, euh, au travail, en fait.
(e) (talking about dealing with a bad customer): Et ça m'a, ça m'a fait remonter cette espèce de truc là, *j'en étais verte* que ça remonte, je pensais pas que ça remonterait, euh, hein.
(f) (thinking about a time when he felt angry): C'est…je…euh…je *fais des cacas nerveux*, mais c'est pas…

However, this kind of figurative language was also found in the speech of L2 English and L2 French bilinguals as well. Six out of 18 L2 English bilinguals, and 3 out of 13 L2 French bilinguals demonstrated ability to use figurative language. Example 37 is from the L2 English bilingual corpus and Example 38 from the L2 French bilingual corpus.

Example 37

(a) (talking about her excitement about going to study abroad): "I'm just *fucking off*!"
(b) (same speaker as above, talking about an argument with a family member): … "and you're *a pain in the ass*!" […] "You're a real *pain in the ass*…" There we are! I can swear in English, obviously.
(c) (talking about Barack Obama's win at the presidential election): It, it, I really felt that I, I was *coming out of a, of a really long um…black or dark, um…place*, um… Cause I came to the United States in 2000, and um, and uh, soon after I arrived, uh, President Bush was elected.

(d) (talking about getting bad customer service at a post office in France): I mean, there is customer service, but they don't *kick a shit*, you know, they don't care about customers.
(e) (talking about a bad diving vacation in Venezuela): And, we're paying two hundred dollars a night, yeah, so, I just…*flew out of my*, uh… and I was just so mad. So, what we did, because we had reserved this through a…uh, diving center, I went to the diving center and I just…*blew him off,* because I was so mad. And I told him, "this is outrageous! You're just *ripping us off*!" […] I re-because it was in Venezuela, but, it's after the whole exchange, I am, I remember sitting back and I'm "oh my god! *I blew this guy off* in Spanish!" […] …so he was starting to say things that would *drive me up the wazoo*.
(f) (talking about being protective of her daughter): and I remember *flying*, you know, *up to the ceiling*, with people whom, you know, suddenly, they, they uh…I wouldn't say, it's not the right word to say to attack her, but when she's being uh, attacked, or being criticized strongly, and that I feel that it's unjustified as she's trying to adapt to the system in America, and she's having, and that we get all sorts of crap, you can see me *flying very high*. […] So, I could see myself *flaming up there*, very powerfully… […] Well, politically, I get, I can *get in flame*. I think in Europe, we tend to do that.
(g) (talking about a bad experience at the 'préfecture' while getting an entrance ticket): And (laughs) that's when I completely *lost it* and yelled at him, and told him he was useless, his job was useless, *he didn't know, uh, right from the left* and that uh, he's a complete disgrace, um.

Example 38

(a) (talking about celebrating her thirtieth birthday): J'étais *bien dans mas peau*, dans ma vie, dans ma situation.
(b) (same speaker as above, talking about an incident when her friends did not return her car on time after borrowing it): J'étais vraiment *hors-de-moi*. Je suis *sortie de mes gonds*. Je, je, j'ai commencé à engueuler et tout ça… […] euh, vraiment, chuis *sortie de mes gonds*. […] J'ai *vidé mon sac*. […] C'est peut-être la première fois que je, que *je me suis emportée* comme ça.
(c) (talking about the war in Iraq) : …personnellement, je pense que on essaie de nous *jouer un tour* en ce moment, hein, ici, aux Etats-Unis, hein, avec toute cette histoire de terroristes et, et, et la guerre en Irap, et tout.
(d) (talking about seeing a good opera) : C'était, euh, c'était un peu *hors-moi*, j'étais pas…j'étais pas vraiment intégré dans le sentiment.

It is interesting to see that in Example 38(d), the speaker used the expression *être hors-de-soi* incorrectly as *hors-moi*, suggesting that the expression may not have been

internalized by the bilingual, although he may have heard it and learned it before and attempted to use it in the context of his narrative.

6.5.2 Reported speech

Both English and French monolinguals used reported speech as a common discourse feature, thus bringing detail into their narratives and getting the listener to focus on their experiences. Example 39 is from the English monolingual corpus and Example 40 from the French monolingual corpus.

Example 39

(a) (talking about giving birth to her son): I was like *"Wow! This was fabulous! I can't wait to do it again!"*
(b) (talking to her husband about whether he saw their little daughters talking to each other): I was like *"where were you?"* (laughs), like *"Did you see the cutest thing ever? That was the cutest thing! Did you see it?"* He's like *"I didn't see it"*. I'm like *"Ok"*.
(c) (talking about her decision of having a baby): And all of a sudden, just the biology kicked in, and I said *"We're gonna get pregnant!"*, you know, *"This is it! I wanna have a kid!"* and so my husband said *"Yeah, sure!"*

Example 40

(a) (talking about a friend who listened to a musician she introduced her to): Et en fait, elle a écouté une des chansons, pace que je lui ai conseillé d'écouter le Live, et elle m'a dit *« Oh, c'est sympa, j'aime bien. »*
(b) (same speaker as above, talking to her boss): …j'ai dit *« Non, je pleurais pas, j'étais énervée à cause de ça. »*
(c) (talking about the birth of her daughter and how worried she was the nurses would switch her baby with somebody else's): Et j'avais dit à son père *"Surtout, quand elle va naître, ils l'amènent pour la peser, pour la mesurer, tu les suis partout, tu les lâches pas ! »* (laughs) Parce que ça m'inquiétait beaucoup. […] Surtout quand ma fille est née, euh, je l'ai regardée et j'ai dit *« Bonjour, Julie. »*
(d) (talking about her frustration about her sister getting on a motorcycle after being in a motorcycle accident): …elle est contente, elle nous dit *"Oh, t'as vu mon casque?"* (laughs).

The extracts of reported speech here convey the speakers' (remembered) affect revealed by what they said and how they said it. The memory of these exchanges is laden with emotion and descriptions of these dialogues enhance the images of the events and their emotional effects on the listener. In our bilingual corpus, we found 8 out of 18 L2 English bilinguals (Example 41) and 3 out of 13 L2 French bilinguals (Example 42) using reported speech.

Example 41

(a) (talking about grades at the bac exam): I was like *"Dude, I don't know anything!"* (laughs)
(b) (same speaker as above, talking to a representative at a post office for delivering her passport to another customer): And I went to talk to them, said, you know *"You made a mistake. I just got my passport from some random guy who has the same last name as me"* (laughs). […] And the first thing they say is *"Well, it's not us, it's not our fault"* that, you know, they had made a mistake.
(c) (talking about a dispute with a family member): …and uh, she started saying something like, uh, *"Yeah! Do tell me I'm stupid!"*
(d) (talking to her ex-boyfriend about him seeing a new woman): So, I've been telling him a few times, you know, *"you should move on here, and give her some space and, and…and, you know, if she likes you, she'll come back to you naturally."* So, I, I talked to him, he said *"You don't wanna be part of this."*
(e) (during a discussion with her husband, after being disappointed by him): I, I, I, I expressed to him *"Good thing we have good communication, we can talk a lot."*
(f) (talking about a bad experience at the 'préfecture'): And he said *"No, that's not possible, you can't get a ticket for someone else."* […] I said "*No, really, can I have a ticket for my wife?"* […] And he said *"If you're not happy, you can return to your country, you don't have to stay in France."*

Example 42

(a) (talking about getting bad customer service at an electronics store in France): Donc, euh, je lui ai demandé, euh, *"Oui, excusez-moi, monsieur, vous travaillez sur commission là ou…?"*
(b) (talking about a dishwashing incident with her boyfriend): J'ai dit *"Bon, soit tu le fais, soit tu le fais pas. Ne me critique pas si c'est moi qui le fais parce que…une heure après, la vaisselle va être propre »* (laughs).

6.5.3 Epithets

The use of epithets was minimal in both English and French monolinguals' narratives. Only one English speaker described the mother of her ex-boyfriend as a "doll", as in Example 43 below, whereas none of the French speakers used epithets in their narratives.

Example 43

> …I loved his mother. His mother was *a doll*. I spoke to her like I could talk to my best friend…

The fact that native speakers did not use this discourse feature as much may be due to the level of formality that speakers attributed to the interview sessions since the use of epithets would most likely require the use of slangs or colloquial language.
Similarly, in the bilingual corpus, use of epithets was rare. Only one L2 English bilingual (Example 44) and one L2 French bilingual (Example 45) used this feature.

Example 44

> (talking about a bad experience at the 'préfecture'): …and told him he was useless, his job was useless, he didn't know, uh, right from left, and that, uh, he's *a complete disgrace*, um.

Example 45

> (talking to a sales representative who did not help much): "Ah ben! Tant pis pour vous, pace que moi, je viens d'acheter un réfrigerateur et un lave-vaisselle. Donc, tant pis ! Pauv' *con* ! »

6.5.4 Depersonalization

Depersonalization was another common feature used by native speakers to talk indirectly about their feelings. The switch from *I* to a hypothetical *you*, although still

referring to themselves, allows the speakers to involve the listener on their side, as if they were trying to convey that what they felt was something you, the listener, would also feel. Instances of depersonalization were abundant in both groups of monolinguals as in Example 46 for English monolinguals, and Example 47 for French monolinguals.

Example 46

(a) (talking about having her first baby): *I* remember being scared because *I* didn't know what was going to happen, having a first baby. *You* don't know, what you're gonna, what's gonna happen, you know. *You* hear all these stories, one person says it's beautiful, one person says it's hurtful (laughs), so *you* don't know which way to go.
(b) (talking about having a baby as an older woman and waiting for the results of amnio-synthesis): But, uh, um…*I* was very afraid (laughs) and, whole, the whole thing was very stressful for me, so, um, the…the, uh…the happy time was when *you* find out what the results were, and, and *I* was really nervous (laughs).
(c) (talking about having to deal with a bad landlord in court): So, um, uh… that kind of, you know, that *I*'d say was one of, one of the worst, you know, periods, because, *you* always had this sense of, *you* don't know what's gonna happen next, what somebody's gonna pull you next. […] *I, I, I* felt helpless in the force of, of somebody who knew, who knew all the tricks, you know, *you, you, you*'re kind of like a hunted animal, as it were, you know, and the hunter knows all the tricks, the hunter has the gun and *you* don't.

Example 47

(a) (talking about her vacation in Sénégal): C'est pas un moment précis où *tu* dis "Ah, là, chuis heureuse, » ou, je sais pas. C'est plutôt quand *tu* reviens, en fait, une fois qu'*tu* reviens en France, *tu* dis « Ah ben, j'étais bien quand même là-bas, » quoi.
(b) (talking her vacation at EuroDisney) : En fait, euh, *j*'oublie tous les problèmes d'adulte machin, *t*'oublies tous les problèmes, en fait.
(c) (talking about his brother's wedding) : Peut-être euh, le mariage de mon frère, on va dire. […] En même temps, comme une…comme un…une bobine de laine qui se déroule au fil de la vie là, qui continue, et qui…et *on* sait pas ou i *nous* mène, où i *nous* conduit. […] Ben, *on* a l'impression que c'est un sommet de bonheur et puis, voilà…
(d) (talking about a friend's betrayal) : 'Fin, voilà. Tout c'qui est mensonge, et euh…et euh...cachoterie, et euh…et les gens qui parlent derrière le dos des autres et que, et qu'*on* se rend compte de tout ça, du moins après, *elle* se dit « Ouais,

pendant plus de deux mois, j'ai ferré les yeux là-dessus, et euh, j'étais pas au courant d'tout ça. » Et ouais, ça met, ça met très en colère le jour J quand *on* apprend tout ça en même temps.

(e) (talking about a friend's betrayal) : Des…des gros quiproquos qu'*on* croit être trahi, mais qu'en fait, non. C'est très compliqué.

(f) (talking about getting a bad grade in English in the bac exam): Bon après, le jour J, *je* me suis concentré (rires). Bon, mais c'est, ouais, c'est ça quoi. C'est, *on* se met en question soi-même et *on* remet en question le système de notation, quoi.

(g) (talking about an anger provoked by colleagues not keeping their promises): Et là, effectivement, *je* suis très fâché. Et quand *je*, quand *on* est fâché, et bien, ça veut dire quoi, ça veut dire que *on* perd la confiance, *on* ne donne plus sa confiance, euh…à ces, à ces gens ou à cette personne qui *vous* a manqué et ça, ça, c'est très frustrant. […] Et là, ça fait, ça fait, ça fait beaucoup plus mal quoi, euh, *on* est pas bien, euh…*on* est un peu, comment, euh…*on* y pense beaucoup, *on* voit les choses peut-être plus noires qu'elles ne sont, euh…la personne avec laquelle *vous* êtes en, en conflit, euh…*vous, vous* avez tendance à ne voir plus que ses défauts. Et même si, à une époque, *vous* l'estimiez, *vous* lui témoiginez de l'affection, euh, à ce moment là, euh, tout est balayé et ne reste de la personne avec laquelle *vous* êtes en conflit, que, euh… le côté négatif que *vous* n'aviez p'être pas vu, euh, euh, que *vous* n'aviez pas senti.

(h) (talking about the birth of his son) : Eum, *on va dire*, le plus marquant, récemment, c'est la naissance de Théo, notre fils, qui est derrière, là (laughs).

(i) (talking about getting a master's degree) : …mais surtout, *on va dire* que le premier évènement qui m'a vraiment rendu heureux, euh, à l'âge adulte, c'est le fait, euh, d'avoir, euh, réussi, euh, ma maîtrise, mon, euh, mon, mon examen de maîtrise.

(j) (talking about losing a friend after an argument) : …j'ai parlé de moins en moins et, euh, ces temps-ci, on n'est plus vraiment en contact, *on va dire*.

(k) (talking about her brother hurting her feelings) : Je me suis dit de la méchanceté gratuite, c'est ça qui m'a- c'est resté au temps, en travers de la gorge, *on va dire*.

What is interesting in this last set of examples is the switch, not only from *je* to *tu* (Examples 47(a) and 47(b)), but also from *je* to the formal *vous* (Example 47(g), in which the speaker even switches from *je* to *on*, then again to *vous*), also from *je* to the impersonal *on* (Examples 47(c) - (f)) and even from *je* to *elle* (Example 47(d)), as if referring to a third person, while still referring to herself and her own emotions. In Examples 47 (h) – (k), the use of *on va dire* also emphasizes the effect of depersonalization.

In the bilingual corpus, 8 out of 18 L2 English bilinguals used depersonalization (Example 48), whereas none of the L2 French bilinguals used the feature.

Example 48

(a) (talking about going to a foreign country to study): It was at the same time, very happy feeling, but also very difficult to express feelings, so, *I*, it was like, um, leaving home for the first time. Because *you* feel like you got *your* whole life in front of *you* and *you* can actually, um, *you* can create the footsteps, uh, that, on, on, on *your* life path, and, and even though *you* know *you* have to be careful sometimes, of course, in this life, and *you* don't do stupid things that would retaliate, it's just that, you know, *you*'re going to be responsible for *yourself* and no one else.

(b) (talking about her reconciliation with her dad): So, *I, I* didn't really noticed because when *you*'re a kid, *you* go through emotion, and *you* don't understand.

(c) (talking about the birth of her daughter): It was just a great experience, *I* loved it…and…but it's more when *you* get towards the end of the pregnancy, uh…*you* wanna see *your* baby, *you*'ve had the ultrasound and things like that, but *you* don't know what's gonna come out, so, it's, it's even, not always, how could I say, it's not…real until the baby's there.

(d) (talking about President Obama's win at the election): And this election, that night, was kind of…um, you know, *you, you* had won the, the prize. *You, you* were part of it, *you* were one of the many people, millions of people who had participated, but it belonged to *you* a little bit, and it was really, uh, intense, really strong.

(e) (talking about her trip to France by herself): *I* felt, I mean, *you* know how *you* feel when *you*'re free, *you*'re really embracing life completely and fully? That's how *I* felt, that's actually… *I*'m really at…it's really rare 'cause *I* try to live life fully, but *you* don't always do that.

6.5.5 Detail

In giving details of the events without spelling out the emotions felt literally, speakers are still able to communicate their emotions strongly, while at the same time, being indirect. This visual image of actually what happened allows the listener to actively participate by placing themselves inside the events and to imagine their own emotional reaction to those events so that the listener can empathize with the speaker's emotional

response. In our monolingual corpus, both English and French speakers used this feature. In many cases of the English corpus and in some cases of the French corpus, the same speakers were found to give more details, both in positive and negative emotion narratives, suggesting that no matter what the emotions felt were, those speakers preferred to give more details to attract the listener's empathy. The English monolingual speaker in Example 49 almost forces the listener to exactly imagine the events leading up to her being angry:

Example 49

> (talking about the birth of her second daughter as an experience provoking anger):
> I went into labor in the middle of the night. So, it was not a planned birth and, um, as usual, my husband was not ready and so, he freaked out and so, it was all a bad thing waiting to happen. So, um, more background information.
> My births are very fast, so, we need to get to the hospital right away.
> The first baby was born in five hours, so we knew this baby was going to be born very quickly also. So, we had to get to the hospital quickly.
> And, when we got the hospital, we got there at shift change.
> We got there at about six o'clock, five thirty, six o'clock, so we got there at shift change, not a plan also, but, and, um, so, we were there in between nurses, so, it was all gonna start out bad.
> We just, and because my labors are fast, my contractions are close, and all I did, and so, my husband had to do all the talking, which began that day very badly.
> The, um, they asked me if I wanted an epidural, and I said, my husband answered for me because I was in pain, and the nurse yelled at my husband, telling him that he could have, she could have whatever she wanted, meaning me, and, of course, that sent him off, so, then, he wasn't supportive of me because he was afraid to say anything else for the rest of the time.
> My dula got there, that was fine. And because my labors are short, the doctor happened to be at the hospital at the time, and he, and she came to check on me.
> She was doing a cesarian for someone else, and because I was there, she came to check on me, and because my labors are fast, she was hoping to get to the office before, she was hoping my baby would be born before she needed to be in the office, so, she was trying to move me along a little bit.
> And so, push come to shove, the baby's taking a little bit longer than she wants the baby to be taking.
> And I asked for some drug, pain medication. And they all convinced me that it was not a good idea, because the baby would come out all drugged because my labors are fast.
> *This begins the angry part (laughs).*

> So it, it just goes from a, what I expected my birth to be, because I already had a baby, to what it turned out to be. So, I call it, I still call it my, um, my 'movie birth'.
> So, when you see a movie and the person's having a baby, and she's screaming and she's yelling? Yeah, that, that was me. I was, I call it the 'movie birth'.
> It was just one of those, my first birth was one of those relaxing, ethereal, "Oh, the baby just came out, how beautiful!"
> The second one, not pretty. And so, they wouldn't give me the drugs because they thought I was going to deliver sooner than I did, so, I was in a lot of pain, I was not happy…

The speaker sets the background of the event as she explains first how her pregnancies normally are and how everything started on a bad note the day of delivery, with her arriving at the hospital during shift change: "So, it was all gonna start out bad". Then, more background information on what was actually bad is given, about the pain, the drugs, and the doctor, until finally, the listener gets a literal description of what she felt during this whole process: "This begins the angry part." But, even without this statement, even though no description of her emotions is given prior to that statement, the listener was already able to read between the lines, understand what she felt, and 'feel for' her.

By contrast, in the following English monolingual narrative about another delivery (Example 50), few details are given.

Example 50

> (talking about the birth of her daughter): Ok, um…the one that comes to mind is the birth of my daughter. Um…uh…I was, it was a C-section, so I was kind of, uh…even kind of strapped down to a table (laughs). But, um, you know, just after the birth, you hear her cry, it was just an amazing feeling, you know, just, uh, very emotional, tears, crying, and my husband was there, you know, watching her birth. It was in a…just a beautiful thing, bringing a baby into the world.

In this story, the events are clear. The narrator delivered her baby via C-section and she explains the whole experience as emotional and beautiful. However, because the events are described without detail (i.e., a C-section was done while she was strapped down to a

table, then the listener is led to what happened "after her birth"), the listener cannot form a mental image of what actually happened before, during and after the birth to predict precisely what the speaker will feel, such that the listener may not be able to fully empathize with the narrator.

French monolinguals also used this discourse feature, as in Example 51.

Example 51

> (talking about meeting her favorite non-French band in person at the airport):
> Je pense que c'est, euh, en fait, je suis fan d'un groupe, quoi, depuis très peu de temps, vers un an et demi, quelque chose comme ça, et, en fait, je me suis inscrite sur un forum, chose que je ne fais pas d'habitude parce que j'aime pas trop le fait que tout le monde puisse voir, euh, ce que les gens écrivent parce que, euh, je me sens pas spécialement à l'aise, puis (mumbles) quelque chose et donc, voilà.
> Et, en fait, y a une rumeur, euh, qui courait, en disant que i-zallaient venir en France. Et je suis bien, euh, sensible, 'fin, j'aime bien voir les, ben, j'aime bien voir les gens heureux, 'fin, j'aime bien voir les gens que j'apprécie, que j'estime, parce que je trouve que leur parcours, bon, est, c'est un parcours comme un autre, c'est un artiste qui chante, mais je trouvais que, ils en faisaient peut-être plus, c'est, eum… Ce qui m'a aussi séduit dans leur musique, c'est que i faisaient beaucoup de acapella et, euh, moi je trouve que pour un artiste, faire du acapella, c'est quelque chose de bien et c'est pas montrer que, euh, faire des belles musiques, eum eum, comment dire, habillée avec un clip ou chanter avec une voix modifiée (rires), euh, comme ça en play back, on reconnaît plus la voix (laughs), et après on est hyper déçu— ou même par rapport aux textes qu'il écrivent, c'est pas que, euh, les p'tites choses à l'eau—à l'eau de rose.
> Bon, y a quelques ballades et, bon, en fait, ben, je me suis quand même rendue à l'aéroport et, euh, 'fin, pour voir si c'était vrai, et, en fait, quand je les ai vus, *j'étais super contente* parce que j'y croyais pas et je me disais « C'est pas vrai ! I sont là à côté de moi ! ». J'étais super heureuse parce que j'avais ramené un sac avec, euh, pleins de choses de France. Enfin, c'était pour leur offrir pour qu'ils puissent découvrir la France et tout (rires).
> Donc, ben, super content, un peu prise par la pression parce qu'il y avait beaucoup d'autres fans qui étaient là. Donc, tout le monde les photographiait à 2, à 2 millimètres du—de l'objectif (rires). Donc, voilà, et en fait, je crois que c'est une des fois où je me suis sentie hyper contente.

Here, the speaker gives the background information as to why this particular group was her favorite and what about their music attracted her, as if to justify her happiness when she met them at the airport. The literal description of her emotions (in italics), "J'étais super contente" only emphasizes the emotions that were already implied in the narrative during the background information.

In our bilingual corpus, several L2 English and L2 French speakers were found to give relatively more detail to their stories than others. In order to quantitatively analyze this feature for the bilingual group, we considered the mean narrative length (for positive and negative emotion narratives) for each speaker in each of their narratives. Any narrative whose length was above the mean narrative length for the type of emotion considered was counted as a detailed narrative. Under this operationalization, we found 10 out of 18 L2 English bilinguals and 6 out of 13 L2 French bilinguals with detailed narratives. Example 52 is an extract from an L2 English bilingual's narrative:

Example 52

> (talking about being victim of a violent car chase after a presidential election in France): So, it was a long time ago, um, during the, the night when Valéry Giscard d'Estaing was elected president of France, for the, for the first time.
> And, um, at that time, I was a student, I was living in Paris.
> I was not really politically, um, um, engaged. I was, I was, you know, I had voted, but I didn't… my, I didn't have strong feelings, or a strong opinion in regards to this election. So I was kind of happy that Valéry Giscard d'Estaing had been elected, but mostly because, you know, this was the way my family had always voted. That was it.
> And, and, uh, during, during this, this, the, the, hours after the election, the results were made official, there was some groups of, um, of opponents to Valéry Giscard d'Estaing who were obviously very disappointed and especially some… you know, young people, um, from some, uh, very extreme political parties who, um, proceeded to, to, um, to fight. And there were some riots and some street, street, uh, I don't know, street fights, between, between militants from both, you know, several different parties.
> Anyway, so, there was some violence on the streets, and, um, I was not aware of that, I was just driving by. And at that point, I realized that two, uh, two men were following me and they were really not just following me but chasing my car, um,

with no, you know, there was no reason they would have done that, just, maybe I looked like someone who would have voted for the other guy but I didn't have a sticker, didn't have a sign, you know, on my, on my, on my car. I was just driving, coming home from somewhere, with a friend.
And, um, when I realized, when it was obvious to me that they were after me, and with some kind of nasty, you know, it felt like a dangerous situation, I tried to drive, you know, more, faster and faster and tried to, to get away from them, but they were probably very skilled drivers and they, they, they wouldn't let go. I, I, I ran several lights and they, they were still behind me and the only thing I could think of was to, um, to drive to the Chilean embassy, embassy because I knew that there was always a, a police car stationed in front of the embassy. And since I was in the neighborhood, that's what I did.
I arrived in front of the embassy and there was a light. The light was red.
I stopped at the light and the guys behind me stopped their car next to mine, opened their door, and came out with, um… metal bars? I don't know, bars of metal, and started hitting my car with them.
And, um, the policeman that was stationed in front of the embassy saw that happening and they came out running. And when the, when the, when the men were, who were really attacking me, um, and my friend, realized that the police was coming at them, they, um, jumped back into their car, and, and took off.
When they did that, they hit the front of my car and destroyed, uh, you know, the…the left wing. The front left wing of my car was completely crashed. Um, and they, and they, they left, they took off.
So, at that point, I, you know, I had, I had mostly been, um, extremely, uh, I was scared, uh, when I was driving, but it was so focused because I was, I was driving the car, I was so focused on, on, on, you know, trying to escape them that, um, my, I think, my emotion came to, you know, I burst into a lot of emotion at that point, mostly, mostly, it was anger.

The amount of detail given by this speaker is impressive. The listener can picture perfectly each moment of the event, and although the literal statement of the narrator's emotions is only given at the end of this extract (in italics), "I was scared", the use of emotion-laden words in the background information, such as *violence, dangerous, chase, riots, fights,* and *hitting*, along with the details of the event are enough for the listener to emotionally get involved in the story and to feel the narrator's emotions and empathize with her.

Example 53 is from an L2 French bilingual's narrative:

Example 53

> (talking about being taken advantage of during a hitch-hike in France):
> Bon, d'accord. Euh, ça aussi, c'est facile si je pense à (laughs), à la période que j'ai vécu en France (laughs) parce que, parce que, comme une jeune fille américaine, j'ai eu pas mal, euh, d'occasions, euh, de…d'être mal à l'aise avec…surtout les hommes français. Parce que, bon, la culture, c'est très différent, et en ce moment, on faisait beaucoup de stops.
> Alors, on, on circulait, euh, le week-end en stop, euh, tous les week-ends avec les amis, seule, euh, oui, c'était très commun, maintenant aussi ? Je sais pas. Mais, euh, alors, euh, y a…il y avait vraiment, euh…pas de problème en général. Mais j'ai eu des problèmes, euh, deux ou trois fois avec les…messieurs qui…ont…essayé de profiter de la situation, que j'étais jeune, que j'étais pas française, alors, ma famille n'était pas là, et, euh…et bon, que j'étais jeune ! Et (laughs) alors, euh, je me souviens, euh, la première fois que je me suis rendue compte que vraiment je parlais français, euh, couramment, euh, c'était, j'étais dans la voiture avec un monsieur et i m'a demandé, i m'a offert un, je me rappelle plus, un coca, quelque chose comme ça, une boisson. Alors, j'ai dit, euh, « merci ». C'est pas grand-chose, alors, euh, au lieu de m'offrir une bouteille de soda, de coca, dans la voiture, i s'est arrêté à un café, à côté de la route, alors, je me suis dit « Bon, on s'arrête dix minutes, c'est pas grave, peut-être il a soif », blablablablabla. Alors, on a bu le…on a bu la boisson. Et, euh, après euh, on est arrêté dans la voiture et il a pris une autre route.
> Alors il est sorti de, euh, l'autoroute, et je me suis rendue compte très vite que, ça allait, ça n'allait pas finir où j'avais pensé.
> *Alors, euh, je me suis fâchée beaucoup.* Et je lui ai vraiment crié dessus jusqu'au point où i m'a laissée au bord de la route parce que je, je lui criais dessus sans cesse.

Here, the background information on how hitch-hiking was common at that time, how she had no problem whatsoever previously, and about her situation in France, as a single, young woman, with no family, and finally the details of the incident (how the man stopped at a café instead of giving her the drink in the car, and how he drove on a different road afterwards) prepares the listener emotionally to what is going to come next (in italics): "Je me suis fâchée beaucoup". With the details given before the emotions are spelled out, the listener is already involved in the events, and the speaker has successfully conveyed her emotions indirectly.

In sum, while recognizing that the amount of detail in a narrative depends on several different factors, such as the content of the narrative itself, the relationship between the speaker and listener, the setting/formality of the interview, the personality of the speaker (whether they are outgoing and talkative vs. shy or less talkative), and the type of emotion (positive emotion narratives may be longer because there is no loss of face of the speaker, whereas less detail might be given in negative emotion narratives), we emphasize the fact that detail, as a discourse feature, was analyzed in the context of how indirectly speakers were able to express emotions, a feature that has been, so far, only evidenced in native speech (Rintell, 1990).

Concluding this section on the analysis of discourse features, we find that, concerning the upper limits of L2 acquisition, late L2 learners at end-state *can* achieve nativelikeness in one of the most difficult areas of L2 acquisition, that of expressing emotion using pragmatically appropriate discourse features. In her study, Rintell (1990) found that none of her non-native speakers, who were intermediate ESL students with Michigan scores ranging from 41 to 83, used the discourse features analyzed in this section (i.e., figurative language, reported speech, epithets, depersonalization, and detail). In contrast, in our study, we find evidence that all of those features were used by many of our bilinguals, suggesting that late L2 learners (with an AOA after puberty) at end state (with an LOR of 4 years or more) can produce nativelike discourse features in narratives of emotional experiences. Even more interesting is the finding that in the L2 English bilingual group, 6 out of the 18 bilinguals used at least 3 out of the 5 features analyzed in the study, suggesting that these features are learnable, even by late learners.

The next chapter summarizes all findings and provides post-hoc discussions on the results for both emotion words and stance markers. Analyses of background characteristics of the best performing L2 learners will also be presented. Last but not least, implications of these results to the question of nativelike ultimate attainment by late L2 learners will be discussed.

Chapter 7: Discussion and Conclusions

This chapter presents a discussion of the findings and some conclusions based on the present study. It is organized as follows: Section 7.1 gives an overview of the purpose and method of the present study. Then, Section 7.2 summarizes the main findings from the data on emotion words and stance categories and discourse features in order to draw conclusions from our set of hypotheses restated in that same section. Relevance/implications of the findings in relation to previous research are also discussed. Section 7.3 relates these findings to the two primary research questions and addresses the question of what late L2 learners *can* do at asymptote. Cases of nativelike attainment in L2 emotion lexicon (regarding both lexical richness and morphosyntactic categories) and L2 discourse features (regarding both stance markers and narrative features) will be presented. Section 7.4 describes the characteristics of highly successful bilinguals (three L2 English and two L2 French) as case studies. Review of their background characteristics and information from their post-hoc interviews will help us identify factors that would be favorable for higher levels of attainment by late L2 learners. Section 7.5 discusses the relevance and implications of the findings. A final Section 7.6 presents the limitations of the present study, future avenues of research on this topic, and how the findings of the study can relate to L2 teaching.

7.1 OVERVIEW OF PURPOSE AND METHOD

The purpose of the study was to evaluate the upper limit of eventual lexical attainment in emotion vocabulary and discoursal attainment in stance marking by late L2 learners. Specifically, the study investigated whether nativelike lexical and discoursal knowledge is achievable for L2 learners of English and French who began acquiring the target language after a mean age of 23. A large body of literature, especially in morphosyntax and pronunciation, has indicated that nativelike attainment in a second

language is impossible, if not exceptionally rare, for late L2 learners. The leading hypothesis behind this claim is the Critical Period Hypothesis (Johnson and Newport, 1989), which states that ultimately successful L2 acquisition is limited to the early years of development, before puberty, due to maturational constraints for language acquisition. On the other hand, a growing number of research has continuously provided evidence of successful adult L2 learners at end-state in the areas of morphosyntax, pronunciation and L2 processing (Birdsong and Molis, 2001; Montrul and Slabakova, 2003; Van Wuijtswinkel, 1994; Birdsong, 1992, for morphosyntax; works of Bongaerts and Flege; Birdsong, 1997, 2007, for pronunciation; Perani et al., 1998; Reichle, 2009), even across several linguistic areas (Marinova-Todd, 2003; Birdsong, 2003a; Ioup, Houstagi, El Tigi, and Moselle, 1994). Birdsong (2005, 2009) attributes this phenomenon to the age-related effects of neurobiology, neurocognition, cognitive development, and L1 entrenchment, not to some biological constraints on language learning. For example, there are age-related neurological changes in the general cognitive faculty (and not specific to language per se), whereby verbal and working memory steadily decline over age, (Cabeza, Nyberg, and Park, 2005; Ullman, 2005).

This study attempted to investigate whether the predictions of the CPH holds for L2 lexical and pragmatic acquisition. More specifically, to evaluate the limits of ultimate L2 attainment in one of the most challenging tasks in the L2, that of expressing emotions in an L2, I measured the lexical richness of emotion words and stance markers, as well as the distribution of emotion words in morphosyntactic categories and of stance markers in stance categories. Based on narratives of (positive and negative) emotional experiences of 31 late L2 learners of English and French at end-state, the lexical aspect of L2 expression of emotion, as well as the discourse features relevant to stance marking and L2 affective repertoires were analyzed. Because the purpose of the study was to investigate L2 ultimate attainment of adult L2 learners, participants were selected based on specific criteria for AOA (between seven and twelve years old, following Hyltenstam, 1992) and LOR (of four years or more). Before the retellings of their stories of emotional

experiences (told in both the bilinguals' L1 and L2), participants completed a language background questionnaire about their L2 learning and use and personal characteristics, and were also interviewed about their previous experiences of expressing emotions in L1 and L2 (question 22 of the questionnaire). 39 monolingual native speakers of English and French served as basis for comparison.

As stated in Chapter 1, the goal of this dissertation was to address two overarching research questions: 1) What does the acquisition of L2 emotion lexicon and discourse features tell us about the pragmatic and communicative competence of late learners and the internalization of L2-specific concepts, and 2) Knowing that expressing emotions in L2 is one of the most challenging tasks for L2 learners (Dewaele, 2008), what can late L2 learners do at end-state, with respect to ultimate attainment in L2 emotion lexicon and discourse and the possibility of nativelikeness? In order to answer these questions, more specific research questions were addressed concerning the L2 vocabulary of emotions and the L2 discourse of emotions, mainly:

1) Concerning the vocabulary of emotion, what are the range of emotion lemmas (measuring lexical diversity) and the frequency of lexemes, i.e., word tokens (measuring lexical productivity) used in L1 French and L1 English? How do L2 learners of French and L2 learners of English perform differently or similarly in their use of emotions lemmas and lexemes in their L2 and L1?
2) What factors (L2 proficiency, amount of L2 use, degree of L2 identification, L2 perception) affect the use of emotion lemmas and lexemes in L2?
3) Concerning the morphosyntactic categories of emotion words, what is the preferred pattern used for emotional description by native speakers of French and English? How do L2 learners of French and English perform differently or similarly in their L2 and L1? Given that the use of certain morphosyntactic patterns reflect how emotions are conceptualized in a language, do the performance of L2 learners show evidence of L1 or L2 conceptual transfer?

4) Concerning the discourse of emotions, how do native speakers of the L2 and L2 learners discuss emotion states, judge, or assess their propositions with regards to stance markers (evidentiality, hedges, emphatics, and modals)? What are the proportions of stance in the stance categories investigated for the monolinguals and bilinguals? How do they compare to each other?
5) From a discourse analysis perspective, how do native speakers of the L2 and L2 learners construct emotions in discourse as to the details of the emotions described, the use of figurative language, reported speech, epithets, and depersonalization?
6) Overall, what are the upper limits of L2 attainment in emotion lexicon and discourse? Is there evidence of nativelike performance in any of the areas analyzed?

The next section summarizes the main findings of the study in order to discuss our set of hypotheses.

7.2 SUMMARY OF THE MAIN FINDINGS

The hypotheses tested in this study, which were presented in Chapter 1 are as follows:

- Hypothesis 1: Based on Rintell (1989, 1990)'s finding that ESL student's stories were less detailed and elaborate than those of native speakers of English, I hypothesize that monolinguals' narratives will be longer and more elaborate than those of bilinguals.
- Hypothesis 2: Following Pavlenko and Driagina (2007)'s findings that the learners' narratives contained a smaller proportion of emotion word tokens than the monolinguals' narratives, I also hypothesize that monolinguals will use more emotion word tokens than bilinguals, and their narratives will be lexically richer than the bilinguals'.

- Hypothesis 3: Dewaele and Pavlenko (2002) found that use of emotion vocabulary in French and English interlanguage was affected by language proficiency, such that more proficient learners used more emotion words. I, thus, hypothesize that highly proficient bilinguals will use more emotion word tokens than less proficient bilinguals and the lexical richness of their emotion vocabulary will be greater than less proficient bilinguals.
- Hypothesis 4: Following Pavlenko (2002), Pavlenko and Driagina (2007), and Wierzbicka (1991, 1992) who found that English favors emotion adjectives, often used with the state verbs *to be*, change-of-state verbs *to become, to get* and perception verbs *to seem, to appear, to feel, to look*, I hypothesize that English monolingual speakers will use more emotion adjectives than any other parts of speech.
- Hypothesis 5: As regards the upper limits of ultimate attainment and the possibility of nativelike or near-native outcome in the area of L2 lexicon (Bahrick et al., 1994; Marinova-Todd, 2003a), I hypothesize that some late L2 learners will behave similarly to the control group with regards to the proportion of emotion lemmas and tokens, morphosyntactic distribution of emotion words, and lexical choice.
- Hypothesis 6: Contrary to Rintell (1990) who found no instances of complex discourse features such as figurative language, reported speech, depersonalization, epithets, and detail, in non-native narratives, I hypothesize that with L2 learners at end-state, some or all of these features will be apparent in some bilinguals' narratives.

In addition to these hypotheses relating to emotion vocabulary and discourse features, we will also explore, at a comprehensive level of analysis, the expression of stance in the emotional discourses of English and French monolinguals and L2 English and L2 French bilinguals. Since stance expression has been shown to be systematically

different across cultures (Besnier, 1990; Precht, 2000, 2003b), we will analyze these differences with respect to the proportion of stance lemmas and tokens in five categories (certainty evidentials, emphatics, doubt evidentials, hedges, and modals), the distribution of stance across these categories, and finally, lexical choice for stance marking. By a comparison of monolinguals and bilinguals' results, focus will also be given on the upper limits of L2 attainment and the possibility of nativelikeness.

The summary of results for emotion words, stance markers, and discourse features will confirm or refute these hypotheses, as presented throughout Chapters 5 and 6. Implications of these findings in relation to previous research are also discussed. Table 24 summarizes the main findings of this study with respect to the comparison between monolingual and bilingual speakers (results of the monolinguals are not presented in this table).

Table 24. Summary of main the findings

Analyses	Results	Hypotheses Confirmed?
EMOTION WORDS		
Narrative length	Bilinguals' narratives were shorter than monolinguals'.	Hypothesis 1 confirmed
Proportion of emotion tokens	Bilinguals' narratives contained a smaller number of emotion word tokens than monolinguals'.	Hypothesis 2 confirmed for the proportion of emotion word tokens
Lexical richness	Bilinguals showed greater lexical richness than monolinguals.	Hypothesis 2 not confirmed for lexical richness
Distribution across morphosyntactic categories	Bilinguals conformed to the native pattern of categorization: L2 English bilinguals preferred the adjectival form, L2 French bilinguals favored the nominal/verbal forms. In their L1, they conformed to the L1 pattern. Occasional non-nativelike patterns of use of categories were also evident.	Hypothesis 5 confirmed

Table 24 continued

Lexical choice	Bilinguals used the same morphosyntactic constructions: L2 English bilinguals used *to be, to get, to feel + adjectives*, as well as *it made me AP*; L2 French bilinguals used *c'est/c'était NP*. Their lexical choice also reflected that of monolinguals, especially for the most frequent words. However, difficulties with lexical retrieval were also evident from certain verbal and non-verbal behaviors.	Hypothesis 5 confirmed
STANCE MARKERS		
Proportion of stance lemmas and tokens	Bilinguals used a smaller number of stance lemmas and tokens than monolinguals.	N/A
Distribution across stance categories	Bilinguals conformed to the monolingual pattern by favoring emphatics the most over all other categories. While L2 French bilinguals conformed to the native pattern of distribution across all 5 categories, L2 English bilinguals' distribution varied.	N/A
Lexical choice	Bilinguals used the same lemmas as those of monolinguals, especially for the most frequent ones. L2 English bilinguals' use of doubt evidentials revealed six areas of use, reflecting uncertainty about either their propositions or their performance.	N/A
DISCOURSE FEATURES		
Figurative language, reported speech, epithets, depersonalization, detail	All were evident in bilinguals' narratives, except for depersonalization in L2 French bilinguals' narratives	Hypothesis 6 confirmed (except for L2 French bilinguals on depersonalization)

7.2.1 Emotion words

This study found that for narrative length, bilinguals' narratives where shorter than monolinguals', with a main effect for group for both positive and negative emotion narratives combined. Hypothesis 1 was confirmed. This is inconsistent with the findings

of Pavlenko and Driagina (2007) who found that American learners of Russian produced significantly longer narratives than Russian monolinguals. However, they explain their result by the fact that the monolinguals saw the task of retelling the content of a film as a recall and performed it easily in their native language, whereas the learners suspected that they were judged on the quality of their performance and may have tried to impress the researcher by displaying their ability in L2 Russian. Moreover, in our study, bilinguals were asked to tell four narratives (two of the same emotional content in each of their languages, for both positive and negative experiences) in total. Since the same story was told twice, there may have been some practice and repetition effect, and even fatigue effect that would have affected the length of their narratives (by not repeating the same details of the event on the second try, for example), despite the fact that they were asked to tell the same story a second time as if the interviewer had never heard the story before.

For the proportion of emotion word tokens, bilinguals' narratives contained a smaller number of emotion word tokens than monolinguals', with a main effect for group for the proportion of emotion word tokens for both positive and negative emotion narratives combined. Hypothesis 2 was confirmed for the proportion of emotion tokens.

For lexical richness of the emotion vocabulary, Hypothesis 2 was not confirmed since the bilinguals showed a higher lexical richness than monolinguals. This is consistent with the findings of Pavlenko and Driagina (2007) with their English-Russian bilinguals, and suggests that the bilinguals have a rich variety of emotion words at their disposal.

With regards to the influence of independent variables (L2 proficiency, L2 use, L2 identification, and L2 perception), although bilinguals with high L2 proficiency, high L2 use, high level of L2 identification and high degree of L2 perception produced, in general, longer narratives, with more emotion word tokens, none of these variables had a significant effect on narrative length and proportion of emotion word tokens. Thus, Hypothesis 3 was not confirmed. This goes against the findings of Dewaele and Pavlenko (2002) who found that level of proficiency was a significant predictor of the number of emotion word tokens. This may be due to the fact that their study consisted of one-to-one

conversations about general topics as likes and dislikes, studies, hobbies, politics, etc., in a relaxed, informal atmosphere. Their participants were not directly targeted to produce L2 with emotional content. In our study, participants were asked directly to talk about their emotional experiences (i.e., elicited narratives). This may have had an effect on our results since, as seen in the research on bilingualism and emotions discussed in Chapter 3, L2 users usually prefer not to discuss emotional topics in their L2 because of their perceived emotionality of the L2 (L1 being the language of closeness and intimacy) and their perceived lack of lexical competence in communicating subtle emotional intentions. In order to save face or to avoid projecting a negative and false image of themselves, they prefer to move to safer, neutral tropics or to detach themselves from the L2. Our results could be explained then, by the fact that, no matter the level of proficiency, bilinguals' use of emotion word tokens was influenced by the perceived emotionality of the L2 and their tendency to want to avoid discussing emotions in the L2. This was confirmed by Question 22 of the background questionnaire (about expressions of emotions in different languages) and post-hoc interviews, in which most participants revealed that if they had a choice between L1 and L2 when expressing emotions, they would choose the L1. For negative emotions however, some revealed that they would rather use the L2 because they would feel less guilty, an artifact of the detachment effect.

For morphosyntactic choices of the emotion vocabulary, bilinguals conformed to the native pattern of categorization, such that L2 English bilinguals preferred the adjectival pattern of the English monolinguals and L2 French bilinguals the nominal/verbal pattern of the French monolinguals. The difference in the frequency of use of these categories was highly significant. This pattern was held consistently for L2 English and L1 English bilinguals, as well as L2 French and L1 French bilinguals, and also throughout the bilinguals' recount of the same stories in their L1 and L2. In general, bilinguals behaved according to the context they were in: when speaking in their L1, they conformed to the morphosyntactic pattern of the L1, when speaking in their L2, they conformed to the morphosyntactic pattern of the L2, suggesting that L2 bilinguals have

internalized the L2 pattern of describing emotions, at the same time, keeping the pattern of the L1. Hypothesis 5 was thus confirmed.

Even at the qualitative level of analysis, Hypothesis 5 was also confirmed in that bilinguals used the same morphosyntactic constructions to talk about emotions as those of monolinguals. L2 English bilinguals used constructions as *to be, to get, to feel* followed by emotion adjectives and the construction *it made me AP*, and L2 French bilinguals used the construction *c'est/c'était NP* or the verbal construction.

As for lexical choice, bilinguals used the same emotion words used by monolinguals. In L2 English, they were *feeling, anger, joy, experience, life, happy, angry, good/better/best, mad, exciting, frustrating, upset, disappointed/disappointing, feel, want, try, need,* and *understand.* In L2 French, they were *colère, bonheur, vie, problème, content, en colère, heureux, bon/meilleur, être fâché, comprendre, aimer,* and *bien/mieux.*

On occasion, non-nativelike patterns of morphosyntactic choices of emotion words were apparent. For example, L2 English bilinguals used the nominal/verbal pattern in L2 English instead of the adjectival form, and L2 French bilinguals used the adjectival pattern in L2 French instead of the nominal/verbal form, suggesting a possible transfer of L1 on L2. L2 transfer on L1 was also evidenced. However, those instances are closely related to individual variability (most of these infelicitous uses were corrected directly by the bilinguals themselves in that same utterance) or typological variability (the verbal pattern etre content would be more frequently used by monolinguals than the nominal form le contentement, for example).

Some difficulties with lexical retrieval was evident through verbal and non-verbal behaviors (i.e., pausing, laughter as a cover-up for hesitation and pauses, false starts, questions to the interviewer, appeal to alternative means of describing emotions, and lexical borrowing).

Overall, these results show that the late L2 English and L2 French bilinguals in this study had rich emotion vocabularies and displayed nativelike use of emotion words

in all morphosyntactic categories. These learners internalized the native speaker pattern of expressing emotions, nominal/verbal for L2 French bilinguals and adjectival for L2 English bilinguals. Although they did experience some difficulties with L1-L2 transfer/ L2-L1 transfer and lexical retrieval, given the fact that the task at hand was a challenging one that required not only L2 lexical knowledge of a certain category of words, but also sociocultural and pragmatic competence, the findings that some of the bilinguals did perform in a nativelike pattern in some of the areas analyzed suggests that late L2 learners can learn challenging areas of the L2 and reach a nativelike or near-native level of ultimate attainment. More discussion on this follows in Section 7.5. What these findings imply in our understanding of the structure of the bilingual mental lexicon is that bilinguals can shift the pattern of their structural choices according to the language used: when speaking L2, they replaced their L1 pattern to the appropriate L2 pattern, when speaking L1, they used the appropriate L1 pattern. Structural preferences of L1 and L2 may nevertheless continue to influence lexical choices in both languages, as was evident in the mutual transfer of L1 and L2. L2 transfer on L1, especially, can be explained by L2 dominance given the extended LOR of our bilinguals, especially the French-English bilinguals. Furthermore, the acquisition of language-specific emotion words such as *frustrated* and *upset* in L2 English, and *énervé*, *excité* and *vexé* in L2 French seemed to be complicated due to the lack of exact translation equivalents. Difficulties with lexical retrieval were also evident. Together, these results suggest cross-linguistic influence affecting both lexical selection in the L2 mental lexicon and the acquisition of L2 emotion vocabulary. With regards to patterns of mapping between concepts and lemmas in the bilingual lexicon, the findings also revealed conceptual equivalence, as in the case of *flabbergasted/soufflé*, which may facilitate internalization of new vocabulary through positive transfer, partial equivalence, as in the case of *vexé/upset*, which facilitate learning but may lead L2 learners to use the word in different ways than native speakers through negative transfer, and lack of conceptual equivalence, as in the case of *taper (les fesses, gentiment*), which led to lexical borrowing from the L1, as in *tap her behind*.

7.2.2 Stance markers

The study found that for the proportion of stance lemmas, bilinguals, in general, used a significantly smaller number of lemmas than monolinguals of their respective languages. This was consistent across positive and negative emotion narratives.

For the proportion of stance tokens, similarly, bilinguals in general used significantly fewer tokens than monolinguals.

In terms of the influence of L2 proficiency on the proportion of stance lemmas and tokens, statistical analyses did not reveal a significant effect. Although highly proficient L2 English bilinguals used more tokens but less lemmas than intermediate-level bilinguals, the difference was not significant. And, although highly proficient L2 French bilinguals used fewer tokens and lemmas than intermediate-level bilinguals, the difference was not significant. Similarly, the variable L2 use did not affect the proportion of stance lemmas and tokens.

For stance categories, both groups of bilinguals conformed to the choice of native speakers of their respective languages by favoring emphatics as the preferable stance marker. Moreover, the difference in choosing emphatics over all other categories was significant for both L2 English bilinguals and for L2 French bilinguals. This pattern was consistent across positive and negative emotion narratives.

With regards to the order of preference for the rest of the stance categories, L2 French bilinguals and L1 French bilinguals both conformed to the monolingual French pattern of preference (emphatics, certainty evidentials, doubt evidentials, modals, and hedges), suggesting an internalization of L2 pattern of stance marking and nativelike attainment for the L2 French bilinguals. For L2 English bilinguals, however, results were more varied in that they did not follow the pattern of the native speakers of English (emphatics, modals, doubt evidentials, hedges, and certainty evidentials for native speakers; emphatics, doubt evidentials, modals, hedges, and certainty evidentials for L2 English bilinguals). L1 English bilinguals, on the other hand, behaved more like L2

English bilinguals (emphatics, doubt evidentials, hedges, modals, and certainty evidentials).

In sum, these quantitative results are inconclusive. The findings that the bilinguals used fewer stance lemmas and tokens than monolinguals, coupled with the fact that both groups of bilinguals conformed to the choice of native speakers of their respective languages by favoring emphatics as the preferable stance marker, and the fact that for the rest of the stance categories, the French group conformed to the native pattern, whereas the English group did not, leave some questions unanswered. Was the number of stance lemmas and tokens used by bilinguals (compared to the monolinguals) a result of limited vocabulary in L2 stance or a result of limited socio-cultural knowledge on stance (since stance expression is highly culture-specific)? What we can say for sure is that: 1) the L2 English bilinguals do not seem to have internalized fully the English pattern of stance expression (although they may have internalized the preferred choice for emphatics), and 2) the L2 French bilinguals, on the other hand, seem to have acquired fully the French pattern of stance expression. Whether both groups of bilinguals have limited stance vocabulary still needs to be tested.

One conclusion we can draw from the fact that the French group, as a whole behaved similarly in their order of preference for stance categories is that that stance in emotional expression, i.e., how attitudes and commitment to propositions should be expressed, is indeed culture and language-specific (Precht, 2000, 2003b). We also saw from the literature on culture and emotions (Chapter 3) that different cultures have different standards and expectations of how and to what degree emotions should be expressed (or not). In this sense, the French culture may favor certain types of stance in expressing emotions, namely certainty evidentiality, including emphatics, and L2 French bilinguals were able to internalize this socio-cultural pattern of discourse.

As for lexical choice of stance markers, L2 English bilinguals used the same lemmas that were used the most by English monolinguals: *actually, really, I remember, I knew that, just, very, so, a lot, I think, I guess, I don't know, I mean, probably, kind of, like, a little* and the modals *can* and *will.* Similarly, L2 French bilinguals also used the

same lemmas that were used most by French monolinguals: *je crois que, vraiment, très, beaucoup, je pense que, je sais pas, peut-être, un peu, pouvoir and vouloir.*

Moreover, in a qualitative analysis, we analyzed the L2 English bilingual's preference for doubt evidentiality as stance marker, and found six areas of use: doubt about the details of the emotional event narrated, increasing and decreasing the degree of emotion felt when placed before or after an emphatic, doubt about choosing the right story to tell, doubt about whether the emotions described match the ones told in the other language, doubt about finding the right word or explaining emotions exactly, and finally, doubt about whether the emotions felt were justified. More discussion on the static/dynamic nature of the use of stance markers will follow in Section 7.5.

7.2.3 Discourse features

The discourse features analyzed in this study included figurative language (including metaphors and idiomatic expressions), reported speech, epithets, depersonalization, and detail. We specifically chose these features which provide an indirect way for speakers to express emotions in order for them to save face, especially while expressing negative emotions (Rintell, 1990). As a matter of fact, these features function to draw the listener to actively participate, "read between the lines", and empathize with the speaker, so that they can successfully convey their emotions indirectly. In order to use language appropriately to express emotions, the L2 learner has to be sensitive to the contextual factors (the interlocutor, the setting) and the type of emotion expressed. Knowing these L2 sociolinguistic conventions is a difficult task and requires more than learning how to form L2 sentences and pronouncing L2 words correctly. We also chose these features because Rintell (1990) found these strategies only narratives of emotions of native speakers, and non-existent or rare in non-native narratives. However, our study provides evidence that not only are they found in our data set of monolinguals, but also in our bilingual data, suggesting that at end-state, even late L2 learners can learn these features and achieve high levels of L2 pragmatic competence. Hypothesis 6 was thus confirmed.

7.3 NATIVELIKE ATTAINMENT

The results discussed in Chapters 5 and 6 and summarized in the previous section clearly show that there are late L2 learners who perform like native speakers in their command of emotion lexicon and stance categories. This section recaps the range of nativelikeness found for both emotion lexicon and stance marking/discourse features.

7.3.1 Emotion words

For narrative length, 2 L2 English bilinguals and 4 L2 French bilinguals, i.e., 6 out of the total 31 bilinguals (19.4%), performed nativelike or near-nativelike, with narrative lengths similar to or longer than those of monolinguals of the respective languages.

For the proportion of emotion word tokens, 2 L2 English bilinguals and 2 L2 French bilinguals, i.e., 4 out of 31 bilinguals (12.9%) performed in the native range, with the proportion of emotion word tokens similar to or greater than that of monolinguals of the respective languages.

For morphosyntactic categories, since morphosyntactic categories for emotion vocabulary are known to be culture and language-specific (since they depend on how native speakers conceptualize emotions in general), appropriate use of these categories by L2 learners would reflect internalization of L2 concepts and high levels of L2 pragmatic and cultural/communicative competence. Moreover, according to the CPH, discussed in Chapter 2, one of the assumptions emanating from the implications of the theory was that post-pubescent learners or late learners should never be able to reach an ultimate level of attainment comparable to that of native speakers, i.e., there should be *no case* of nativelike asymptotic performance by adults in an L2. This was not supported by the results of our study. Regarding appropriate use of morphosyntactic categories for emotion words, some late L2 learners did behave in a nativelike pattern, such that L2 English bilinguals preferred the adjectival form, just as native speakers of English did, whereas

L2 French bilinguals preferred the nominal/verbal form, just as native speakers of French did. In our study, we found 8 L2 English bilinguals and 8 L2 French bilinguals, i.e., 16 out of 31 total bilinguals (51.6%) who performed nativelike in terms of morphosyntactic categories of emotion vocabulary.

7.3.2 Stance markers

Based on our results, cases of nativelike uses of stance lemmas, tokens, and appropriate categories, as well as L2 discourse features were apparent. With regards to the proportion of stance lemmas, 3 L2 English bilinguals and 3 L2 French bilinguals, i.e., 6 out of the total 31 bilinguals (19.4%) performed nativelike or near-nativelike. Whereas English monolinguals used an average of 22.5 lemmas and French monolinguals, an average of 16.7 lemmas, the best performing L2 English bilinguals used between 21 and 25 lemmas, and L2 French bilinguals between 16 and 21 lemmas.

For the proportion of stance tokens, one L2 English and 3 L2 French bilinguals, i.e., 4 bilinguals out of 31 (12.9%) performed in the native range with a mean number of tokens similar to or greater than the monolinguals'. Whereas the English monolinguals used an average of 74.2 stance tokens, the best performing L2 English bilingual used an average of 74 tokens. The French monolinguals used an average of 41.3 tokens, and the best performing L2 French bilinguals used between 43 and 69 tokens.

Concerning the choice of stance categories, especially the use of emphatics as the preferred stance marker, 11 L2 English bilinguals and 7 L2 French bilinguals, i.e., 18 bilinguals out the total 31 (58.1%) performed nativelike by selecting emphatics as the most used stance marker. Whereas English monolinguals used 36.6% emphatics out of all stance tokens, L2 English bilinguals' use of emphatics ranged between 35.2% and 60.9%. French monolinguals used 39.3% emphatics and L2 French bilinguals' use ranged between 40.5% and 76.9%.

Finally, with respect to the order of preference for use of stance categories, 4 L2 French bilinguals followed the pattern of French monolinguals in favoring emphatics, certainty evidentials, doubt evidentials, modals and hedges. Only one L2 English

bilingual followed the English monolingual pattern of preference for emphatics, modals, doubt evidentials, hedges, and certainty evidentials. In total, 5 out 31 bilinguals (16.1%) performed nativelike.

7.3.3 Discourse features

Contrary to Rintell (1990) who found no case of native speakers using the discourse features analyzed in this study, our results showed that the number of L2 bilinguals using them ranged from one to 10. Moreover, all of the discourse features analyzed were used by at least one bilingual, suggesting that any late L2 learner can learn to use these features (Birdsong, 2003a, c, d). For figurative language, 6 L2 English bilinguals and 3 L2 French bilinguals, i.e., 9 out of the total 31 bilinguals (29%) used the feature. 8 L2 English bilinguals and 3 L2 French bilinguals, i.e. 35.5% of the bilinguals used reported speech. One L2 English bilingual and one L2 French bilingual, i.e., 6.5% used epithets. 8 L2 English bilinguals and none of the L2 French bilingual, i.e., 25.8% of bilinguals used depersonalization. Finally, 10 L2 English bilinguals and 6 L2 French bilinguals, i.e., 51.6% used detail (operationalized as narrative length greater than the mean of each group).

7.4 BACKGROUND CHARACTERISTICS OF EXCEPTIONALLY PERFORMING L2 LEARNERS

We saw from our study that nativelike attainment in expression of emotion in L2 was possible for adult L2 learners. In this section, we aim to summarize the characteristics of successful learners based on their language background questionnaire, and post-hoc interviews, in order to identify what the best, favorable learning conditions or factors are for successful L2 attainment at end-state.

The successful learners analyzed here were chosen on the basis that they performed nativelike in most of the areas investigated, including proportion of emotion

lemmas/tokens, stance lemmas/tokens, morphosyntactic choice for emotion words, choice of stance categories, and use of discourse features.

7.4.1 Case studies of three L2 English bilinguals

Three female L2 English bilinguals stood out as successful learners. Their highest level of education was a Master's degree or equivalent. Their LOR in the U.S. ranged from 5 to 17 years and their AOA ranged from 21, 22, to 46. The main mode of learning L2 English was varied, from more interaction with people, more classroom instruction, or equally both. Their self-rated proficiency levels in L2 reading, writing, speaking, listening, grammar, vocabulary, and pronunciation combined were 5.7, 6.6, 6.4 on a scale of 7, with 7 being nativelike. They were first exposed to the second language between ages 8 to 12 and spent 8 to 20 years learning it, either formally (in a classroom) or informally (on their own with self-help books or consciously through target language speakers). The amount of L2 use for these learners was rated as 50%, 70%, and 80% of the time on a daily basis, overall, at home, work or elsewhere, with family or friends. The main language of instruction from primary/elementary school to college/university was mixed, from all in French, to mostly French up to college, and mixed throughout. Two of the learners chose English as the language used to express emotion/affection, while the other used both. Two of the learners described themselves as code-switching, 'rarely' to 'very frequently' depending on whether they are talking to spouse/family members, friends, or co-workers. While two of the learners stated that they would prefer to use (mostly) English in general, all three expressed a high degree of L2 perception (i.e., how important it is to speak the L2 like a native): 6.1, 6.2, 6.5, with 7 being extremely important. Whereas the learner that did not prefer to use English rated her L2 identification as medium (scale 4, somewhat), the other two rated it very highly, between 6 ('very') and 7 ('strongly').

Based on Question 22 of the Language Background Questionnaire ("Among the languages you know, which language is the one that you prefer to use to express your

emotions? Do you feel you express your emotions better in that language? Why or why not?"), along with post-hoc discussions, L1 French was indeed the language of emotional closeness and intimacy for two of the learners. For them, French is the language of love and affection and "comes out as a melody". It resonates more strongly (for example, "je t'aime" is sensed as very deep and strong), and is used to express "pure", positive emotions. On the other hand, L2 English is the language used for arguments, insults, explanations, disapproval, and negative emotions such as anger and being upset. They explained it by the fact that English is more precise, has a larger vocabulary for these purposes, is more direct. One of these two learners, however, explains that the reason for this has to do with the way she feels about the American culture. Although she has lived 10 years in the U.S., she still feels more attached to the French culture, is less integrated in the American one. Because her heart is in French, soft feelings are better expressed in French and she has a harder time expressing sweet feelings in English. Her negative reactions are in English because she feels less guilty about not restraining herself and letting go. As she is married to an American man, she feels inhibited when she has to express positive emotions to her husband in L2 English. The other learner had an opposite reaction: for positive affection, she prefers L2 English, while L1 French is used for negative emotions, such as complaining, insulting and being *énervée*. Although she identifies with the American culture very strongly and lives with foreign graduate students at home, she feels that French has a lot more vocabulary for expressing negative emotions than English.

7.4.2 Case studies of three L2 French bilinguals

Three female L2 French bilinguals stood out as successful learners. Their highest level of education ranged from a Master's degree or equivalent to a Doctorate. Only the LOR of one learner (8 years) fit the criterion of 4 years or more. The other two only lived in France for 2-3 years. Their AOA ranged from 16, 18, and 31. The main mode of learning L2 French was both through formal classroom instruction and through

interaction with people. One learner learned L2 French mainly through classroom instruction. For overall self-rated proficiency in French, all three rated their level between very good and nativelike (6.4, 6.7, 6.9). They were first exposed to the second language between ages 5 to 14 and spent between 12 to 33 years learning it, either formally or informally. As for L2 use, because the subjects did not live in France at the time of interview, they only used L2 from 10%, 30% to 50% of the time on a daily basis. The main language of instruction while growing up at school was mostly English for all three, with two of them receiving instruction in French as well, especially in high school and university. While two of the learners chose both English and French as the language used to express emotion/affection, the other used French. This may be due in part by the fact that she had lived 8 years in France and was still there at the time of interview. All three of the learners described themselves as code-switching, 'occasionally' to 'very frequently', not only between English and French, but also with a third language for two of the learners. The language that they prefer to use in general was English or both, or changed depending on the interlocutor. All three expressed a high degree of L2 perception (6.5, 7, 7, with 7 being extremely important to speak like a native). All three rated L2 identification between 5 (quite important) and 7 (extremely important).

Based on post-hoc interviews, we found that all feel comfortable expressing emotions in both languages, due to having a French boyfriend for 5 years, or having been in France at the age of 20 to teach English as an assistant teacher, or having live in France as a teenager. However, one of them stated that because of the subtle grades of meaning of emotional words in French, sometimes she feels limited in that she cannot "hit the nail on the head" in French, as she does in English. Another learner stated that she was told by her friends that she was "different" in the two language contexts and that in a French context, she was no different from other French women. When speaking English, she acts American and when speaking French, she tries to act French in order to assimilate by imitation. In her own words, she "changes" by taking on a different persona so that she can assimilate and not stand out as a foreigner or a non-native speaker (refer to Piller's concept of "passing for a native speaker", discussed in Chapter 2).

7.5 RELEVANCE AND IMPLICATIONS OF FINDINGS

What do these results suggest in relation to the predictions of the CPH? According to Johnson and Newport (1989), no adult L2 learner should become nativelike or near-nativelike:

> For adults, later age of acquisition determines that one will not become native or near-native in a language; however, there are large individual variations in ultimate ability in the language, within the lowered range of performance (Johnson and Newport, 1989, p. 265).

For Long (1990), a single instance of nativelikeness in a late L2 learner would serve to refute the CPH. He argues that "the easiest way to falsify [the CPH] would be to produce learners who have demonstrably attained native-like proficiency despite having begun exposure well after the closure of the hypothesized sensitive periods" (p. 255). Especially for L2 lexical acquisition, Long (2007) stated that "Age 6 has also been implicated for nativelike attainment of L2 lexis and collocation" (p. 50). Given these claims and evidence of late L2 English and French bilinguals performing nativelike or near-nativelike in the areas of L2 emotion lexicon and discourse of emotional expression, we can conclude that Johnson and Newport's and Long's conclusions are not warranted. Long (2007) writes, "The widely documented failure of late starters to achieve native-like proficiency, even when motivation, cognitive abilities, and opportunity are optimal and plentiful, all agree, is one of the most salient facts about SLA" (p. 71). However, this study found that nativelike attainment in some aspects of L2 emotion lexicon and discourse was possible for some adult learners.

Because the study did not focus on one full linguistic area but on a sub-category of L2 lexicon (that of emotion vocabulary) and a sub-category of L2 discourse (that of expressing emotions), with only two types of emotions studied (*happy* and *angry*), it is difficult to generalize the findings of our study to the whole category of L2 emotion lexicon and discourse or to the general category of L2 lexicon and discourse. However,

since the focus of the study was on the levels of L2 ultimate attainment by adult learners, i.e., what they *can* do at end-state, what we *can* conclude from our findings is that adult learners *can* reach nativelike levels of performance regarding pockets of proficiencies in expressing emotions in an L2, for example, narrative length, proportion of emotion tokens, lexical richness of emotion vocabulary, and proportion of stance tokens and lemmas, with nativelikeness ranging between 12.9% and 19.4%. Even more interesting is the finding that adult L2 learners can internalize L2-specific concepts and discourse patterns. Because different cultures conceptualize emotions differently (as active or passive states) and because the sociolinguistic conventions of talking about emotions in discourse are different (as to what can be said, to whom, when, in what ways, and which emotions should be expressed), the ability of adult learners to use morphosyntactic categories for emotion words and stance marking categories (certainty evidentiality or doubt evidentiality) appropriately can shed some light into what the highest level of L2 ultimate achievement can be, since, expressing emotions in an L2 is one of the most challenging tasks in an L2 (Dewaele, 2008). In these areas, namely, morphosyntactic categories of emotion words and stance categories, we found 51.6% and 58.1% of late L2 learners performing nativelike, respectively in those areas. If we consider the whole order of preference for stance categories, instead of the first favored category (where 58.1% comes from), there are still 16.1% who performed nativelike in that categorization. Compared to the 5% to 10% range of nativelikeness that have commonly been evidenced so far in the literature on L2 morphosyntac and pronunciation, the findings of this study on L2 emotion lexicon and discourse stand in stark contrast, especially compared to the body of research that has documented the apparent failure of adult L2 learners to become nativelike in the domains of L2 morphosyntax and phonology. The results may suggest that the lexicon may be less vulnerable to the effects of aging than phonology and morphosyntax, such that the L2 lexis and discourse ability may not be subject to a critical period beyond which native level is unattainable. However, the best possible explanation seems to be that there are no maturational constraints on learning an L2 and that age effects evidenced in the L2A literature are actually age-related effects (Birdsong, 2006,

2009). According to Ullman's Declarative/Procedural Model of processing (2001), lexical accumulation and retrieval is carried out in the associative/declarative system, and the declarative memory is known to decline over age due to neurological changes in the brain (such as reduction in volume over age, decline of the amount of neurotransmitters, as well as processing speed, cued and free recall) (Cabeza, Nyberg, and Park, 2005).

Despite the fact that we compared L2 emotion lexicon and discourse to those of native speakers, we must note, at the same time, that native level L2 vocabulary and discourse is not the norm among adult L2 learners, especially when the areas of emotion vocabulary and discourse are so interactional in nature: how people talk about emotions, what words are used and how the discourse of emotion is constructed depend on individual factors, as mentioned above, as well as the dynamicity of the interaction itself. Defining a norm on these bases would be irrelevant.

Along the same lines, just as discourse is interactional in nature, stancetaking is a dynamic, interactional phenomenon that can change at the inter-speaker level, but also at the intra-speaker level. Different people will take different stance about a situation but this stancetaking will not stay as a static element throughout the discourse. Most often, intra-speaker variability on stancetaking will emerge when the speaker is faced with different purposes during the same discourse. For example, from our study, although we analyzed stance markers at the group level (i.e., monolingual groups using certain kinds of stance markers, bilinguals using certain kinds of stance markers), giving the impression that stancetaking is a static phenomenon, we do recognize its dynamic nature and the possible variability at the individual level: a monolingual or bilingual speaker may take different stances depending on the type of narrative (positive or negative emotional experience) and even during the course of the same narrative discourse, they may take different stances to fulfill different discourse purposes. In this respect, analyzing nativelikeness in stancetaking, especially at the individual level, would be irrelevant. In fact, the SCT of L2 pragmatic development gives us significant insights in that it views "expertise" in L2 learning as dynamic and fundamentally socio-interactional,

as opposed to a static trait: "expertise shifts contingently during collaborative activities […] and participants' individual expertise coalesces into a collective expertise that is more than the sum of its parts" (see Kasper, 2009). Given that expertise itself is dynamic and socio-interactional, any attempt to investigate stancetaking in L2 as nativelike or non-nativelike should be made carefully. Our goal in this study was to analyze the culture and language-specific use of stance markers of collective groups of monolinguals and bilinguals and we do recognize what we get reflects "more than the sum of its parts". On another note, a separate discourse analysis study evaluating stancetaking in bilinguals' L1 and L2 narratives of emotional expression may add to the emerging literature of stancetaking, and will be set as suggestions for future work.

7.6 DIRECTIONS FOR FUTURE RESEARCH

7.6.1 Limitations of the present study

One of the limitations of our study concerning the methodology was that not all participants, especially the English-French, were at end-state (operationalized in our study as LOR $\geq$ 4 years). This was due to the difficulty in finding subjects who matched this criterion. Since the goal of the study was to analyze late L2 learners' performance at end-state, future additions to the study should better control LOR and include more subjects who satisfy this criterion, for more confident, conclusive results.

A second limitation concerns the representativeness of the population sampled. Although the participants in the bilingual groups were comparable in age and diverse in their educational and professional backgrounds, the monolingual groups were not representative of the general population and their variables were not ideally comparable. The English monolingual group was mainly composed of adults in the teaching field (from a variety of discipline), with similar educational backgrounds (at least a Master's degree, up to a Doctorate), whereas the French monolingual group were mostly university students from Paris and Montpellier, working towards their Bachelor's degree or the equivalent of a Master's degree. Given these samples, results of our study should be

analyzed accordingly, and future additions to the study should better control the sampling of population.

In relation to the linguistic material measured, specifically the type of words that were counted as emotion vocabulary, even though we deliberately chose to include emotion-laden and emotion-related words in our count, along with pure emotion words, it would be interesting to see whether the same results hold when only pure emotion words are considered. As far as reliability is concerned, an intra-rater and inter-rater reliability score for emotion words would likely improve data consistency and replicability of results.

Also, because the narratives differ in length, a Type/Token Ratio calculation for analysis of lexical richness of the emotion lexicon may not be appropriate. Another alternative would be to do an analysis of TTR based on "per 100 words" or "per 1,000 words".

7.6.2 Future work

Based on the findings of this study and the still limited amount of studies on this topic, there is still a great deal of information to be uncovered in future research of L2 expression of emotion. For example, what other factors influence the use of emotion lemmas, lexemes, and stance markers? Our study found no significant relevance of L2 proficiency, L2 use, L2 identification, and L2 perception on neither the emotion vocabulary, nor on the proportion of stance lemmas and tokens. However, Dewaele and Pavlenko (2002) found gender to be a significant (and strongest) predictor of the number of emotion lemmas/tokens such that females used more emotion words than males. Unfortunately in our study, because the ratio of men/women was unequal, with women participants being almost double in number in each group, such analysis was not possible. Degree of extraversion was also a significant predictor in their study, such that extraverts used more emotion lemmas/tokens. Perceived language emotionality may also affect the

proportion of emotion lemmas/tokens and even stance markers. Future studies should take these factors into account.

Another possible area of research would be to test the shape of the age function, by comparing younger vs. older L2 learners in terms of the use of emotion vocabulary and stance and discourse features. Such a study would enable us to see whether the age function is discontinuous or linear (Johnson and Newport, 1989; Birdsong and Molis, 2001), providing evidence for or against the existence of a critical period for acquisition of L2 emotion vocabulary and discourse.

A large body of information on L2 narrative performance can be drawn from the kind of study undertaken here. Following Rintell (1990), the structures of L2 emotion narratives can be analyzed using the Labovian methodology (1972). In fact, Minami (2002) states that only few studies exist which deal with narratives spoken by people acquiring a second language, and far less work is being done on L2 narrative performance at end-state. The author is only aware of one such study, that of Marinova-Todd (2003) who did find L2 learner's narrative strategies to be nativelike in some respects. According to Pavlenko (2005), storytelling in a new language in itself is a complex task and telling personal stories of emotions is even more challenging since it requires the L2 speaker to be familiar not only with the cross-linguistic differences in the conventionalized structure of narrative, amount of evaluation offered, directness of the emotions described, and framing of the particular events, but also with the affective repertoires and devices available to convey the emotions effectively and engage the audience. Given the challenges involved, studying these kinds of L2 narratives will add to the literature of ultimate attainment in L2.

In another analysis of the frequency of use emotion lemmas/tokens and stance lemmas/tokens, we would also be interested in exploring whether it matters more if the bilinguals' L1 is French or English or if the language in which the narratives are told is L1 or L2.

7.6.3 Application of findings into L2 instruction

As noted by Dewaele and Pavlenko (2002) and Rintell (1984, 1989, 1990), L2 learners' weak knowledge of metaphoric language and their perceived lack of lexical competence in communicating emotions effectively (without losing face) affects their performance in expressing emotions in that they avoid discussions of strong emotional content by moving to neutral topics or refrain wholeheartedly from participating on discussions of emotional topics. When they do participate and express emotions in L2, less proficient speakers may use fewer emotion words, sound less elaborate and more detached (Rintell, 1984, 1989). She notes: "without relying on positive transfer from the native language and culture, many learners are further behind in their ability to interpret emotion than in other second language abilities" (1989, p. 262), further pointing out that expressing and perceiving affect are skills that are rarely included in second language curricula (1990). Kellerman (2001) also points out that emotional involvement in narratives is often accomplished by the use of metaphorical language but that metaphors and idioms are rarely addressed in foreign language classroom (p. 189, in Dewaele and Pavlenko, 2002). Given the state of second/foreign language curricula on teaching these abilities and given the importance of emotions in everyday life communication both in L1 and L2 contexts, adjusting second/foreign language teaching programs seems to be necessary. In general, foreign language textbooks, as noted by Pavlenko and Driagina (2007) and based on personal experience in teaching French, either do not explicitly discuss language-specific semantic, pragmatic, and sociolinguistic properties of L2 emotion vocabulary, or if they do incorporate emotion vocabulary, they are overgeneralized as translation equivalents on the basis of English. For example, an emotion word entry in a French textbook would look like this: *il est fâché: he is angry*), No presentation of information on the semantic and conceptual representation of emotion words leading to their morphosyntactic choice of categories is provided such that L2 learners can learn the nominal/verbal pattern of preference of French native speakers. Results and information from this study and others on emotional expression in L2 should

be incorporated in the L2 curriculum, knowing that these features, even though challenging, are "learnable" even by adult learners, as was shown here.

In sum, this study has provided important evidence against the Critical Period Hypothesis for emotion lexicon and discourse pragmatics in second language acquisition. We showed that nativelike attainment of emotion lexicon and stance marking in L2 English and L2 French is possible for late L2 learners. With the abundant evidence against the predictions of the CPH in all linguistic areas of the L2, providing more evidence for the (non)-existence of a critical period seems to be irrelevant. Future research in this area should focus on finding what factors contribute the most to successful language learning by adults, so that our perception of L2 learners is not one that undermines what they can really do at end-state. Our study of the expression of emotions in L2 showed that adult L2 learners can, with favorable learning conditions and individual factors, reach levels of attainment similar to native speakers.

We hope that our work will inspire further investigations of how emotions are encoded and expressed in first and second languages. We also hope that adult learners of a second language and bilinguals are seen under brighter lenses, as real individuals, not abstract, generalized or idealized subjects, learning or using a complex tool called (second) Language to mediate themselves and their relationships to others and to themselves, creating meaning in the world, both inter-personally and intra-personally.

Appendix 1:

Questionnaire for English Monolingual Speakers

SOCIO-LINGUISTIC QUESTIONNAIRE

All information in this questionnaire will be used anonymously for research purposes only.

Contact information:

First Name:

Last Name:

Telephone Number:

E-Mail Address:

Socio-linguistic Information:

1. Date of Birth (month/day/year):

2. Place of Birth:

3. Gender: M / F

4. Current Residence:

5. Education (highest level of education or name of diploma received):

6. Profession:

7. First Language:

8. First Language of Your Parents:

9. Are you: monolingual? bilingual? multilingual?

   If bilingual, languages spoken:

   If multilingual, languages spoken:

10. Foreign Languages Learned (both formally and informally):

Language	Age started	For how long
a.		
b.		
c.		
d.		
e.		

11. Have you lived in a non-anglophone country for more than a month? Y / N

If YES :

Country	Age Started	For how long
a.		
b.		
c.		
d.		
e.		

Appendix 2:

Questionnaire for French Monolingual Speakers

QUESTIONNAIRE SOCIO-LINGUISTIQUE

Toutes les données de ce questionnaire et de l'interview qui suit restent anonymes.

Vos coordonnées:

Nom:

Prénom:

Téléphone:

E-Mail:

Votre information socio-linguistique :

1. Date de Naissance (mois/jour/année):

2. Lieu de Naissance:

3. Sexe: M / F

4. Résidence Actuelle:

5. Education (Votre plus haut niveau d'éducation ou Nom de diplôme reçu):

6. Profession:

7. Langue Maternelle:

8. Langue Maternelle de Vos Parents:

9. Etes-vous Monolingue ? Bilingue ? Multilingue ?

Si bilingue, langues parlées :

Si multilingue, langues parlées:

10. Langues Etrangères Apprises (de façon formelle ou informelle):

Langue	Age	Durée
a.		
b.		
c.		
d.		
e.		

11. Avez-vous vécu en dehors de la France pendant plus d'un mois ? OUI / NON

Si OUI :

Pays	Age	Durée
a.		
b.		
c.		
d.		
e.		

Appendix 3:

Questionnaire for Bilingual Speakers

LANGUAGE HISTORY QUESTIONNAIRE

Contact Information:

Name:

Email:

Telephone:

Please answer the following questions to the best of your knowledge. All information will be kept confidential.

PART A

1. Date of Birth (Month/Day/Year):

2. Sex (circle one): Male / Female

3. Education (highest degree obtained or school level attended):

4(a). Country of Birth:

4(b). Country of Current Residence:

5. If 4(a) and 4(b) are the same, how long have you lived in a foreign country where your second language is spoken?

Country: _____

From (year) _____ to _____.

If 4(a) and 4(b) are different, how long have you been in the country of your current residence?

From (year) _____ to _____.

6. What is your native language? (If you grew up with more than one language, please specify)

7. Do you speak a second language?

__YES my second language is _____.
__ NO (If you answered NO, you need not to continue this form)

8. If you answered YES to question 7, please specify the age at which you started to learn your second language in the following situations (write age next to any situation that applies).

At home: _____
In school: _____
After arriving in the second language speaking country: _____

9. How did you learn your second language up to this point? (circle all that applies)

(Mainly Mostly Occasionally) through formal classroom instruction.

(Mainly Mostly Occasionally) through interacting with people.

A mixture of both, but (More classroom More interaction Equally both).

Other (specify**:** _____).

10. For each of the languages you know, rate your ability in the following areas of proficiency. Please rate according to the following scale (write down the number in the table). Rate yourself in comparison to native speakers of the language considered:

Very poor	Poor	Fair	Functional	Good	Very good	Native-like
1 _____	2_____	3_____	4_____	5_____	6_____	7_____

(a)

Language	**Reading Proficiency**	**Writing Proficiency**	**Speaking Fluency**	**Listening Ability**
Native Language: _____				
Second Language: _____				
Other Language: _____				
Other Language: _____				

(b)

Language	**Knowledge of Grammar**	**Knowledge of Vocabulary**	**Pronunciation Ability**
Native Language: _____			
Second Language: _____			
Other Language: _____			
Other Language: _____			

11. Provide the age at which you were first exposed to each foreign language and the number of years you have spent learning each language.

Language	**Age first exposed to the language**	**Number of years learning**
Second Language: _____		
Other Language: _____		
Other Language: _____		

12. If you have lived or travelled in other countries for more than three months, please indicate the name(s) of the country or countries, your length of stay, and the language(s) you learned or tried to learn.

Country	**Length of Stay (in months)**	**Language learned**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

PART B

13. Estimate, in terms of percentages, how often you use your native language and other languages per day in each situation (in all daily activities combined, circle one that applies). Make sure the figures in each situation add up to **100%**.

(a) Use at Home:

Native language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Second language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Other languages: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
(specify the languages: _____)

(b) Use at Work:

Native language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Second language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Other languages: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
(specify the languages: _____)

(c) Use at School (if applicable):

Native language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Second language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Other languages: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
(specify the languages: _____)

(d) Use with Family:

Native language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Second language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Other languages: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
(specify the languages: _____)

(e) Use with Friends:

Native language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Second language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Other languages: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
(specify the languages: _____)

(f) Use Elsewhere:

Native language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Second language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Other languages: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
(specify the languages: _____)

(g) Overall Use:

Native language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Second language: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Other languages: 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
(specify the languages: _____)

14. Write down the name of the language in which you received instruction in school, for each schooling level:

Primary/Elementary School:
Secondary/Middle School
High School:
College/University:

15. In which languages do you usually:
Add, multiply, and do simple arithmetic?
Dream?
Express affection or emotion?

16. When you are speaking, do you ever mix words or sentences from the two or more languages you know? (If no, skip to question 21).
___YES (continue to Question 17)
___NO (skip to Question 18)

17. List the languages that you mix and rate the frequency of mixing in normal conversation with the following people according to the following scale (write down the number in the table):

Never Rarely Occasionally Sometimes Frequently Very Frequently Always
1 _____ 2_____3_____ 4_____ 5_____6_____7_____

Relationship	Languages mixed	Frequency of mixing
Spouse/family members		
Friends		
Co-workers		
Classmates (if applicable)		

18. In which language (among your best two languages) do you feel you usually do better? Write the name of the language under each condition.

	At home	At work
Reading	_____	_____
Writing	_____	_____
Speaking	_____	_____
Listening	_____	_____

19. Among the languages you know, which language is the one that you would prefer to use in these situations?

At home _____
At work _____
At a party _____
In general _____

PART C

20. How important is it to you to speak your second language (and other foreign languages you may know) like a native? For each aspect of the language, rate according to the following scale (write down the number in the table).

Not at all Important	Slightly important	Fairly important	Somewhat important	Quite important	Very important	Extremely important
1	2	3	4	5	6	7

Linguistic Aspect	**Second Language : _____**	**Other Language : _____**	**Other Language : _____**
Pronunciation			
Grammar			
Fluency			
Choice of Words			
Use of Idioms			
Use of Slang			
Getting your Point Across			
Communicating your Feelings/Emotions			

21. How strongly do you identify with these cultures? Rate according to the following scale (write the number next to each country).

Not at all Slightly Fairly Somewhat Rather Very Strongly
1_____2_____3_____4_____5_____6_____7_____

U.S./U.K.:
FRANCE:
OTHER:
(specify:_____)

22. Among the languages you know, which language is the one that you prefer to use to express your emotions? Do you feel you express your emotions better in that language? Why or why not?

23. If there is anything else that you feel is interesting or important about your language background or language use, please comment below.

PART D

Do you have additional questions that you feel are not included above? If yes, please write down your questions and answers in the space provided below

Appendix 4:

Total Emotion Lemmas Produced by 20 English Monolinguals *(651 Lemmas; 2,054 Word Tokens)*

Nouns (N=468)	**N**	**Adjectives (N=888)**	**N**	**Verbs (N=566)**	**N**	**Adverbs (N=92)**	**N**
feeling	29	happy	92	want	92	well	21
experience	23	angry	68	feel	48	together	8
anger	15	good/better/best	57	need	28	essentially	6
birth	14	bad/worse/worst	33	cry	22	particularly	6
pregnancy	11	mad	24	try	21	bad(ly)	4
sense	11	hard	23	understand	14	emotionally	4
life	10	frustrated/frustrating	22	help	13	extremely	3
happiness	9	cute	15	hope	13	alone	2
joy	9	exciting/excited	14	like	12	basically	2
mind	9	normal	13	avoid	9	especially	2
pain	9	right	13	hurt	9	hopefully	2
problem	8	easy	11	scream	9	incredibly	2
dream	7	disappointing/disappointed	10	enjoy	6	necessarily	2
control	6	wonderful	10	express	6	perfectly	2
decision	6	beautiful	9	lose	6	actively	1
fear	6	different	9	love	6	amazingly	1
tears	6	relieved	9	care	5	angrily	1
disappointment	5	upset/upsetting	9	decide	5	apart	1
emotion	5	annoying/annoyed	8	explain	5	completely	1
expectation	5	nervous	8	laugh	5	differently	1
frustration	5	nice	8	think	5	directly	1
loss	5	fine	7	calm down	4	ecstatically	1
pride	5	furious	7	confront	4	extraordinarily	1
respect	5	honest	7	hit	4	fairly	1
trouble	5	hurt	7	pick on	4	happily	1
worry	5	proud	7	realize	4	horribly	1
anxiety	4	special	7	refuse	4	immaturely	1
argument	4	ok	6	trust	4	normally	1
favor	4	perfect	6	yell	4	personally	1
labor	4	great	5	accept	3	quickly	1
pressure	4	overwhelmed/--ing	5	admit	3	repeatedly	1
rage	4	real	5	agree	3	safely	1
relief	4	satisfied	5	announce	3	simply	1
responsibility	4	scared	5	expect	3	slightly	1
accomplishment	3	sweet	5	get married	3	smoothly	1
agreement	3	warm	5	handle	3	terribly	1
anticipation	3	afraid	4	look forward	3	unbelievably	1
authority	3	close	4	make sure	3	uncontrollably	1
desire	3	glad	4	protect	3	unjustly	1
dislike	3	horrible	4	regret	3	entirely	1
hardship	3	huge	4	respect	3		
marriage	3	important	4	support	3		
peace	3	intense	4	win	3		
reason	3	painful	4	worry	3		

rule	3	pretty	4	adjust	2		
support	3	ready	4	affect	2		
temper	3	sad	4	anger	2		
						Interjections	
trick	3	sick	4	appreciate	2	**(N=40)**	**N**
waste	3	silly	4	argue	2		
wedding	3	surprised	4	complain	2	wow!	6
win	3	tired	4	convince	2	oh my god!	4
(on the)-defensive	2	true	4	deny	2	oh yeah!	4
accident	2	supporting/supportive	4	die	2	oh god!	3
						uh! -	
annoyance	2	amazing	3	disappoint	2	(scare)/uuuhhh!	3
attention	2	crazy	3	enforce	2	god!	2
attitude	2	difficult	3	experience	2	man!	2
bully	2	enraged	3	figure out	2	oh!	2
difference	2	exhausted	3	freak out	2	aaii!	1
drug	2	fun	3	imagine	2	boy!	1
energy	2	fuzzy	3	infuriate	2	damn it!	1
expression	2	helpless	3	joke	2	gee	1
game	2	medicated	3	kill	2	gggrrrrr!	1
God	2	new	3	progress	2	holy cow!	1
hell	2	out of control	3	promise	2	oh boy!	1
help	2	polite	3	share	2	oh hell yeah!	1
hospitality	2	positive	3	sing	2	oh my goodness!	1
hunter	2	sure	3	smile	2	oh yes!	1
idea	2	tough	3	strangle	2	thank God!	1
issue	2	tremendous	3	take care	2	what the hell!	1
jealousy	2	willing	3	threaten	2	woo!	1
miscarriage	2	bewildered	2	wish	2	yippie!	1
persecution	2	big (win, moment)	2	accomplish	1		
process	2	bitter	2	accuse	1		
protection	2	bothered	2	alienate	1		
secret	2	competitive	2	arrest	1		
smile	2	concerned	2	attack	1		
stress	2	conflicting	2	attempt	1		
top	2	curious	2	back-stab	1		
trust	2	elated	2	beat (=win)	1		
(the) competing	1	emotional	2	befriend	1		
(the) negative(s)	1	enthralled	2	believe	1		
(the) unknown	1	excellent	2	bend	1		
abortion	1	exhilarating	2	bite	1		
abuse	1	fantastic	2	blow up	1		
advantage	1	fearful	2	blubber	1		
adventure	1	hurtful	2	boil	1		
advice	1	interested	2	bond	1		
arrogance	1	kind	2	bother	1		
assault	1	major	2	break	1		
attachment	1	mediocre	2	break apart	1		
attempt	1	minor	2	break down	1		
award	1	natural	2	break off	1		
betrayal	1	neat	2	bully	1		
boundary	1	obnoxious	2	call (names)	1		
bragger	1	older	2	celebrate	1		
break	1	pleasant	2	cheer	1		
cancer	1	pregnant	2	coerce	1		
ceremony	1	pure	2	collapse	1		
choice	1	puzzled	2	communicate	1		

compensation	1	ridiculous	2	compete	1
competition	1	rough	2	congratulate	1
complaint	1	smart	2	consider	1
concern	1	strange	2	control	1
confidence	1	stressful	2	deal with	1
confrontation	1	threatening	2	defend	1
confusion	1	ugly	2	deserve	1
contentment	1	uncomfortable	2	destroy	1
credibility	1	wrong	2	disagree	1
cuteness	1	abandoned	1	disinherit	1
death	1	absurd	1	flaunt	1
discomfort	1	adventurous	1	frustrate	1
disdain	1	alienated	1	get angry	1
divorce	1	anticipating	1	get mad	1
drain	1	appalled	1	get rid of	1
eagerness	1	apprehensive	1	give in	1
excitement	1	arrested	1	give up	1
fault	1	arrogant	1	hide	1
fight	1	attacked	1	hold (something) in	1
graduation	1	attentive	1	hug	1
harassment	1	average	1	improve	1
headache	1	black-listed	1	invite	1
helplessness	1	bonding	1	keep control	1
hero	1	calm	1	knuckle under	1
holidays	1	challenging	1	lash out	1
honesty	1	clear	1	learn	1
honey	1	cold	1	lie	1
hospital	1	comfortable	1	linger	1
hostility	1	compelled	1	make fun	1
ignorance	1	competition-oriented	1	make sense	1
injustice	1	constant	1	matter	1
intention	1	correct	1	miss out	1
irritation	1	cruel	1	move on	1
limit	1	damn	1	penalize	1
logic	1	dangerous	1	persecute	1
love	1	dear	1	process	1
mess	1	depressed	1	punch	1
mishap	1	destroyed	1	push	1
mission	1	discriminated	1	push (to the limit)	1
mistake	1	disrespectful	1	rage	1
opportunity	1	drawn out (process)	1	rant	1
penalty	1	drugged	1	rave	1
perspective	1	drunk	1	recognize	1
pinnacle	1	dry	1	recommend	1
power	1	eager	1	reinforce	1
priority	1	ethereal	1	relish	1
prison	1	evil	1	resent	1
promise	1	experienced	1	resolve	1
propaganda	1	expressive	1	savor	1
prosperity	1	fabulous	1	scare	1
puzzlement	1	fair	1	send (someone) off	1
question	1	fascinated	1	separate	1
raid	1	favorite	1	shout	1
reasoning	1	formal	1	shut (someone)-down	1
rebirth	1	frail	1	shut up	1
regulation	1	free	1	slam	1
relationship	1	fresh	1	snap out	1

remorse	1	fucking	1	solve	1
request	1	fulfilled	1	soothe	1
resentment	1	full	1	split up	1
resolution	1	funny	1	stew	1
satisfaction	1	gitty	1	stomp (foot)	1
show	1	goofy	1	surprise	1
sickness	1	grand	1	swear	1
slouch	1	gratifying	1	take advantage	1
stupidity	1	grumpy	1	thank	1
surprise	1	guilty	1	throw (someone) out	1
sweetheart	1	healthy	1	treat	1
sympahty	1	helpful	1		
tension	1	hopeful	1		
theory	1	human	1		
threat	1	hunted	1		
trepidation	1	impersonal	1		
troublemaking	1	in love	1		
violence	1	inappropriate	1		
wonder	1	informal	1		
		intimidated	1		
		involved	1		
		jealous	1		
		judged	1		
		legitimate	1		
		livable	1		
		logical	1		
		long (process)	1		
		loud	1		
		maltreated	1		
		miserable	1		
		moderate	1		
		nasty	1		
		optimal	1		
		overjoyed	1		
		particular	1		
		patriotic	1		
		peaceful	1		
		picked on	1		
		pleased	1		
		protective	1		
		quiet	1		
		rational	1		
		relaxing	1		
		relevant	1		
		religious	1		
		respected	1		
		responsible	1		
		risky	1		
		rude	1		
		safe	1		
		satisfactory	1		
		seething	1		
		selfish	1		
		sensitive	1		
		settled	1		
		sharp	1		
		shocked	1		
		short (temper)	1		

significant	1
simple	1
slow	1
sorry	1
spiritual	1
stabilized	1
stable	1
stellar	1
stubborn	1
stunned	1
stupid	1
successful	1
sustained	1
sympathetic	1
tense	1
terrible	1
terrified	1
thrilled	1
ticked off	1
time-consuming	1
traumatic	1
unacceptable	1
undecided	1
under control	1
unexpected	1
unfair	1
unpleasant	1
unsupported	1
unusual	1
verbal	1
vulnerable	1
weird	1
welcoming	1

Appendix 5:

Total Emotion Lemmas Produced by 19 French Monolinguals *(581 Lemmas; 1,490 Word Tokens)*

Nouns (N=466)	**N**	**Adjectives (N=409)**	**N**	**Verbs (N=466)**	**N**	**Adverbs (N=141)**	**N**
vie	33	heureux	42	aimer	20	bien	46
problème	18	content	25	énerver	14	surtout	12
colère	17	bon/meilleur	17	être fâché	14	mal	11
bonheur	14	en colère	15	pleurer	14	complètement	10
envie	11	difficile	13	ressentir	13	ensemble	8
fierté	10	fort	12	se marier	13	totalement	5
voyage	10	mauvais/pire	11	se sentir	13	énormément	4
peur	9	triste	8	être énervé	10	extrêmement	4
bac	8	différent	6	comprendre	9	normalement	4
droit	8	fier	6	partager	9	seul	4
joie	8	grand	6	exprimer	8	franchement	3
justice	8	proche	6	fâcher	8	parfaitement	3
haine	7	spécial	6	réussir	8	simplement	3
mariage	7	amoureux	5	se rendre compte	7	vite	3
plaisir	7	beau	5	extérioriser	6	facilement	2
faute	6	bizarre	5	oublier	6	spécialement	2
impression	6	simple	5	refuser	6	(en avoir) marre	1
sentiment	6	gratuit	4	essayer	5	autrement	1
surprise	6	important	4	s'attendre	5	bizarrement	1
difficulté	5	magnifique	4	chanter	4	concrètement	1
émotion	5	malade	4	croire	4	constamment	1
engagement	5	particulier	4	espérer	4	contrairement	1
gamine	5	possible	4	être déçu	4	directement	1
naissance	5	ravi	4	être soulagé	4	également	1
question	5	urgent	4	être vexé	4	forcément	1
rage	5	confus	3	se tromper	4	inconsciemment	1
avenir	4	émouvant	3	s'énerver	4	malheureusement	1
effort	4	en conflit	3	s'inquiéter	4	notamment	1
frustration	4	faible	3	supporter	4	particulièrement	1
pensée	4	frustrant	3	accepter	3	personellement	1
questionnement	4	incroyable	3	aider	3	professionnellement	1
sensation	4	juste	3	apaiser	3	psychologiquement	1
soulagement	4	négatif	3	attendre	3	religieusement	1
tristesse	4	nul	3	contrarier	3		
vacance	4	sympa	3	en vouloir	3		
bien-être	3	terrible	3	être compliqué	3		
confiance	3	vrai	3	être frustré	3	**Interjections (N=8)**	**N**
défaut	3	à l'aise	2	être oblige	3		
espoir	3	agressif	2	faire remonter (sentiment)	3	ah!	3
incomprehension	3	blessant	2	juger	3	mince!	1
larme	3	calme	2	perdre	3	ouf!	1
maternité	3	contrariant	2	rigoler	3	phheww!	1
pression	3	drôle	2	rire	3	wou-hou!	1

repère	3	dur	2	sauter (de joie)	3	zut!	1
rupture	3	enceinte	2	s'y attendre	3		
souvenir	3	facile	2	tenir à	3		
urgence	3	faux	2	aller (ça va)	2		
angoisse	2	gros (quiproquo)	2	arranger	2		
broutille	2	horrible	2	compliquer	2		
caca (nerveux)	2	humain	2	défendre	2		
choc	2	impressionant	2	estimer	2		
contact	2	injuste	2	étonner	2		
cri	2	inquiet	2	être arrêté	2		
crise	2	intense	2	être trahi	2		
déception	2	nerveux	2	expliquer	2		
douleur	2	personnel	2	frapper	2		
esprit	2	rigolo	2	gagner	2		
examen	2	solidaire	2	louper	2		
expérience	2	utile	2	penser	2		
explication	2	à coeur	1	recevoir	2		
fatigue	2	agréable	1	régler	2		
gnon	2	aléatoire	1	rencontrer	2		
histoire-(sentimentale)	2	amical	1	s'aggrandir	2		
honneur	2	anodin	1	se comprendre	2		
manque	2	anxieux	1	se plaindre	2		
parcours	2	arrogant	1	se retrouver	2		
pleurs	2	bête	1	séduire	2		
provocation	2	bleuffant	1	s'emmerder	2		
qualité	2	brutal	1	s'en foutre	2		
quiproquo	2	catastrophique	1	s'ennuyer	2		
raciste	2	chaleureux	1	souhaiter	2		
raison	2	clair	1	taper	2		
reconnaissance	2	commode	1	tomber	2		
relation	2	commun	1	tromper	2		
rencontre	2	compatissant	1	vivre	2		
rêve	2	complexe	1	(se sentir) ignoré	1		
solidarité	2	complice	1	(se sentir) snobé	1		
souci	2	compliqué	1	abandonner	1		
trahison	2	con	1	admettre	1		
abattement	1	confiant	1	adoucir	1		
aboutissement	1	confortable	1	améliorer	1		
acceuil	1	cool	1	anhiler	1		
accident	1	dangereux	1	apprécier	1		
accomplissement	1	délicat	1	avancer	1		
accord	1	démocratique	1	avoir tort	1		
accouchement	1	dépaysant	1	blesser	1		
affection	1	égal	1	casser	1		
ambiance	1	en souffrance	1	clasher	1		
amitié	1	énervant	1	cocouner	1		
amour	1	essentiel	1	compromettre	1		
attente	1	étrange	1	conforter	1		
avalanche	1	euphorique	1	conseiller	1		
besoin	1	évident	1	consoler	1		
bêtise	1	excellent	1	craquer	1		
bien	1	extraordinaire	1	crier	1		
bienvenu	1	fâcheux	1	critiquer	1		
blague	1	familier	1	débarasser	1		
brûlure	1	fataliste	1	déboucher	1		
cachoterie	1	ferme	1	décliner	1		
cadeau	1	flagrant	1	découvrir	1		

capacité	1	flou	1	dégénérer	1
cassé	1	franc	1	déplaire	1
charme	1	froid	1	désirer	1
chômage	1	gai	1	dominer	1
coeur	1	gamine	1	douter	1
compte	1	génial	1	embêter	1
concession	1	gravissime	1	émouvoir	1
conflit	1	grinçant	1	ennuyer	1
confort	1	idiot	1	enquêter	1
conscience	1	impuissant	1	éprouver	1
conte de fée	1	inconscient	1	équilibrer	1
couple	1	individuel	1	être angoissé	1
danger	1	inexplicable	1	être balayé	1
danse	1	irrespectueux	1	être blessé	1
décision	1	irritant	1	être bloqué	1
démission	1	joyeux	1	être concerné	1
dépression	1	à la légère (peu-sérieux)	1	être détendu	1
Dieu	1	magique	1	être disparu	1
disparition	1	malheureux	1	être doué	1
dispute	1	marquant	1	être ému	1
doute	1	mature	1	être épuisé	1
embarassement	1	méchant	1	être étonné	1
enterrement	1	mécontent	1	être évacué	1
entrave	1	mental	1	être excite	1
épreuve	1	moyen	1	être exteriorize	1
euphorie	1	nécessaire	1	être indigné	1
excitation	1	noir	1	être introverti	1
expression	1	normal	1	être manipulé	1
fête	1	objectif	1	être perdu	1
flic	1	orgueilleux	1	être pose	1
force	1	parfait	1	être remonté	1
fou-rire	1	parlant	1	être soudé	1
galère	1	pauvre	1	être stressé	1
gueule	1	perturbant	1	être surexcité	1
honte	1	phénoménal	1	être surprise	1
humeur	1	positif	1	être trompé	1
humour	1	précis	1	éviter	1
image	1	profond	1	exploser	1
importance	1	psychique	1	faire des sauts	1
indignation	1	raciste	1	favoriser	1
injustice	1	raide	1	ferrer	1
jeu	1	rationnel	1	fondre	1
maghrébin	1	réservé	1	freiner	1
maladie	1	ridicule	1	gêner	1
malheur	1	rose	1	hésiter	1
méchanceté	1	ruminant	1	ignorer	1
mensonge	1	sacré	1	insister	1
mental	1	saoul	1	insulter	1
morale	1	satisfait	1	intéresser	1
mort	1	sensible	1	jouer	1
nécessité	1	sûr	1	lapider	1
Noël	1	surprenant	1	manquer	1
passé	1	susceptible	1	minimiser	1
peine	1	timide	1	mourir	1
personalité	1	touchant	1	offrir	1
perte	1	tragique	1	paniquer	1
plainte	1	tranquile	1	pendre	1

possibilité	1	trivial	1	permettre	1
précaution	1	vache	1	plaire	1
priorité	1	vexant	1	plomber	1
responsabilité	1	violent	1	préférer	1
résultat	1	vivable	1	promettre	1
revers	1	zen	1	provoquer	1
rigolade	1			rassurer	1
rumeur	1			rater	1
sanglot	1			récompenser	1
secours	1			réfléchir	1
sécurité	1			remercier	1
soirée	1			retaper	1
sourire	1			retourner	1
soutien	1			retrouver	1
syncope	1			s'arranger	1
Tati	1			se barrer	1
vexation	1			se concentrer	1
victime	1			se demander	1
				se fâcher	1
				se faire avoir	1
				se perdre	1
				se prendre (dans les bras)	1
				se questionner	1
				se rappeler	1
				se reconnaitre	1
				se réunir	1
				se saouler	1
				se souvenir	1
				se taper	1
				s'effondrer	1
				s'éloigner	1
				s'entendre	1
				sentir	1
				s'entremêler	1
				s'intéresser	1
				souffrir	1
				soutenir	1
				subir	1
				suffir	1
				surmonter	1
				sympathiser	1
				témoigner	1
				tenter	1
				toucher	1
				tuer	1
				vieillir	1
				y arriver (réussir)	1

Appendix 6:

Total Emotion Lemmas Produced by 18 French-English Bilinguals in L2 English *(448 Lemmas; 1,040 Word Tokens)*

Nouns (N=228)	**N**	**Adjectives (N=417)**	**N**	**Verbs (N=319)**	**N**	**Adverbs (N=67)**	**N**
feeling	26	happy	38	feel	48	extremely	11
emotion	10	angry	36	want	24	basically	7
anger	8	good/better/best	29	try	23	completely	6
joy	8	different	12	need	10	well	4
disappointment	5	mad	12	express	7	especially	3
experience	5	exciting/excited	8	lose	6	only	3
frustration	5	frustrating/frustrated	8	love	6	together	3
life	5	great	8	understand	6	totally	3
mistake	5	sad	7	kill	5	equally	2
pain	4	upset	7	like	5	fully	2
result	4	difficult	6	travel	5	politically	2
baccalauréat/bac	3	disappointed/disappointing	6	yell	5	simply	2
energy	3	strong	6	care	4	strongly	2
happiness	3	cool	4	cry	4	actively	1
pregnancy	3	important	4	hit	4	deeply	1
sense	3	interesting	4	explain	3	easily	1
test	3	proud	4	hope	3	ecstatically	1
weight	3	right	4	laugh	3	enough	1
accident	2	complete	3	realize	3	entirely	1
adventure	2	confident	3	regret	3	extraordinarily	1
argument	2	deep	3	share	3	forcefully	1
disagreement	2	depressed/depressing	3	trust	3	gently	1
excitement	2	fair	3	waste	3	hard	1
explanation	2	fun	3	argue	2	naturally	1
fault	2	funny	3	attack	2	perfectly	1
flame	2	hard	3	belong	2	powerfully	1
love	2	honest	3	blow (someone) off	2	purely	1
mismatch	2	hurt	3	burst	2	rationally	1
pressure	2	nice	3	calm down	2	strangely	1
problem	2	personal	3	carry (someone) off/down	2	surprisingly	1
question	2	sorry	3	control	2		
relief	2	stupid	3	decide	2		
sarcasm	2	terrible	3	destroy	2		
						Interjections (N=9)	**N**
tears	2	real	3	encounter	2		
violence	2	amazing	2	enjoy	2		
wedding	2	awful	2	escape	2	oh my god!	5
ability	1	bad	2	expect	2	oh!	2
accomplishment	1	close	2	experience	2	ah!	1
aggression	1	comfortable	2	explode	2	wow!	1
agreement	1	dramatic	2	fight	2		
approach	1	fine	2	fly	2		
belonging	1	flabbergasted	2	forget	2		

benefit	1	focused	2	hate	2
birth	1	free	2	help	2
birthday	1	furious	2	live	2
boundary	1	impolite	2	marry	2
calm	1	integrated	2	meet	2
chase	1	intelligent	2	offer	2
closeness	1	intense	2	protect	2
compensation	1	involved	2	recognize	2
composure	1	lost	2	resent	2
control	1	nasty	2	scream	2
crap	1	negative	2	shout	2
creativity	1	nervous	2	spank	2
danger	1	new	2	think	2
death	1	peaceful	2	abuse	1
decision	1	powerful	2	accept	1
defense	1	relieved	2	accuse	1
defensive	1	small	2	advance	1
degree	1	stressful	2	affect	1
depression	1	terrified	2	balance	1
disgrace	1	thrilled	2	beam	1
disrespect	1	true	2	beat up	1
divorce	1	understanding	2	believe	1
doubt	1	useless	2	bond	1
dream	1	wrong	2	bother	1
ecstasy	1	anti-climactic	1	break (the ice)	1
ego	1	appropriate	1	celebrate	1
enthusiasm	1	ashamed	1	complain	1
excuse	1	astonished	1	contain	1
explosion	1	at peace	1	convince	1
fairness	1	attacked	1	cool down	1
family reunion	1	attentive	1	crash	1
fight	1	aware	1	dance	1
freedom	1	awkward	1	deserve	1
friendship	1	balanced	1	divorce	1
fulfillment	1	big	1	embrace	1
goal	1	black	1	fall	1
goose bumps	1	blind	1	fall apart	1
hope	1	boring	1	fall in love	1
interest	1	brilliant	1	fight back	1
issue	1	broken	1	fix	1
lack	1	calm	1	flame up	1
landmark	1	careful	1	fly out	1
lightness	1	careless	1	freak	1
mariage	1	challenging	1	freak out	1
mentality	1	content	1	free	1
mess	1	courageous	1	fuck off	1
militant	1	crazy	1	get along	1
mind	1	creative	1	get away	1
misdeed	1	critical	1	hide	1
nonsense	1	criticized	1	imagine	1
opponent	1	dangerous	1	injure	1
opportunity	1	dark	1	insult	1
paranoid	1	deaf	1	interest	1
party	1	dear	1	jump (up and down)	1
passing away	1	decent	1	lack	1
past	1	delicious	1	learn	1
patience	1	delighted	1	loathe	1
pride	1	delightful	1	look forward	1

prize	1	dumb-founded	1	miss	1
pursuit	1	ecstatic	1	misunderstand	1
quality	1	emotional	1	move on	1
rage	1	energized	1	offend	1
regret	1	engaged	1	pick on	1
relationship	1	enraged	1	push	1
respect	1	enthusiastic	1	react	1
responsibility	1	euphoric	1	realize (a dream)	1
riot	1	extreme	1	receive	1
satisfaction	1	fascinating	1	refuse	1
shit	1			report	1
shock	1	ferocious	1	retaliate	1
spoof	1	friendly	1	rip (someone) off	1
state	1	glad	1	shoot	1
stress	1	hopeful	1	solve	1
subject	1	impressive	1	strop	1
truth	1	imprisoned	1	surpass	1
unwillingness	1	incredible	1	surprise	1
warning	1	independent	1	swear	1
waste	1	jealous	1	take care	1
willingness	1	laid off	1	wed	1
world	1	liberated	1	win	1
		light	1	wish	1
		little	1	worry	1
		long	1		
		lucky	1		
		mixed	1		
		natural	1		
		obvious	1		
		original	1		
		outrageous	1		
		particular	1		
		passionate	1		
		positive	1		
		possible	1		
		primal	1		
		pure	1		
		random	1		
		rare	1		
		rational	1		
		rejected	1		
		relevant	1		
		responsible	1		
		ridiculous	1		
		rude	1		
		safe	1		
		scared	1		
		self-centered	1		
		sensitive	1		
		serious	1		
		severe	1		
		sheer	1		
		silly	1		
		simple	1		
		special	1		
		sudden	1		
		supportive	1		
		surprised	1		

tired	1
undisciplined	1
unexplainable	1
unfair	1
unjustified	1
uptight	1
wild	1
willing	1
wonderful	1
worth	1
worthwhile	1

Appendix 7:

Total Emotion Lemmas Produced by 13 English-French Bilinguals in L2 French *(284 Lemmas; 568 Word Tokens)*

Nouns (N=181)	**N**	**Adjectives (N=140)**	**N**	**Verbs (N=182)**	**N**	**Adverbs (N=58)**	**N**
colère	12	content	15	être fâché	12	bien/mieux	22
sentiment	12	différent	13	comprendre	7	seul	8
bonheur	8	en colère	12	aimer	6	complètement	4
vie	7	heureux	8	essayer	6	mal	3
chanson	5	bon/meilleur	7	éviter	5	personnellement	3
problème	5	important	7	penser	5	brusquement	2
besoin	4	furieux	4	se fâcher	5	ensemble	2
droit	4	nouveau	4	sentir	5	entièrement	2
émotion	4	marrant	3	changer	4	autrement	1
guerre	4	ravi	3	être marié	4	en douceur	1
joie	4	tranquille	3	se sentir	4	facilement	1
mariage	4	à l'aise	2	choisir	3	franchement	1
peur	4	beau	2	contrôler	3	gentiment	1
sensation	4	complet	2	croire	3	malheureusement	1
choc	3	difficile	2	profiter	3	mieux	1
coeur	3	extraordinaire	2	communiquer	2	normalement	1
fête	3	formidable	2	crier	2	sagement	1
frustration	3	gentil	2	déprimer	2	sérieusement	1
idee	3	grisant	2	être cassé	2	simplement	1
question	3	normal	2	être frustré	2	vite	1
bien-être	2	pire	2	être perdu	2		
chance	2	agréable	1	être soulagé	2		
esprit	2	apathétique	1	exprimer	2		
état	2	arabe	1	plaire	2	**Interjections (N=7)**	**N**
euphorie	2	calme	1	refuser	2		
folie	2	certain	1	se moquer	2	oh!	3
plaisir	2	clair	1	se souvenir	2	ah ben!	1
raison	2	commun	1	s'en fouttre	2	bof!	1
souci	2	défectif	1	s'exprimer	2	tant pis!	1
soupir	2	désolé	1	s'inquiéter	2	wow!	1
accomplissement	1	dur	1	tuer	2		
amour	1	en forme	1	vexer	2		
anniversaire	1	énorme	1	(rendre) agressé	1		
anticipation	1	évident	1	(se sentir) exploité	1		
avenir	1	facile	1	(se sentir) frustré	1		
aventure	1	flagrant	1	aboutir	1		
bien	1	frustrant	1	accepter	1		
blague	1	génial	1	accomoder	1		
brillance	1	grave	1	adouer	1		
cadeau	1	incroyable	1	aider	1		
cancer	1	intense	1	anticiper	1		
compétence	1	intéressant	1	briller	1		
con	1	joli	1	censer	1		
contentement	1	joyeux	1	chahuter	1		

crise	1	magnifique	1	chercher (ne me_pas)	1
déception	1	nécessaire	1	conseiller	1
dépression	1	négatif	1	convaincre	1
Dieu	1	nul	1	critiquer	1
différence	1	obligatoire	1	danser	1
divorce	1	outrageux	1	décider	1
éclat	1	pauvre	1	déranger	1
épatement	1	personnel	1	énerver	1
excitation	1	positif	1	engueuler	1
excuse	1	précieux	1	etre agité	1
expérience	1	raisonnable	1	être choqué	1
explication	1	rare	1	être connu	1
explosion	1	relaxe	1	être désolé	1
faiblesse	1	respectueux	1	être embêté	1
faute	1	rouge (visage)	1	être emporté	1
force	1	spécial	1	être ému	1
fou	1	stressant	1	être encouragé	1
galère	1	terrible	1	être énervé	1
gamin	1			être enragé	1
gros mot	1			être entouré	1
importance	1			être épaté	1
impression	1			être exagéré	1
investigation	1			être inconnu	1
invitation	1			être insulté	1
lassitude	1			être intégré	1
luxe	1			être menacé	1
malheur	1			être terrifié	1
Noël	1			être touché	1
opinion	1			être vexé	1
opportunité	1			excuser	1
paradis	1			exploiter	1
peine	1			fâcher	1
perte	1			fêter	1
possibilité	1			gagner	1
pouvoir	1			gaspiller	1
réflexion	1			gêner	1
repos	1			imaginer	1
résultat	1			inviter	1
réussite	1			marcher (réussir)	1
risque	1			partager	1
satisfaction	1			participer	1
situation	1			permettre	1
spectacle	1			peser	1
terroriste	1			réfléchir	1
tristesse	1			ressentir	1
vacances	1			rêver	1
victoire	1			rigoler	1
volonté	1			rire	1
				rougir	1
				s'arranger	1
				savoir	1
				se casser	1
				se débarasser	1
				se disputer	1
				se faire avoir	1
				se moquer	1
				se rappeler	1
				se remettre	1

s'enfuir	1
vider	1
vivre	1

Appendix 8:

Total Emotion Lemmas Produced by 13 English-French Bilinguals in L1 English *(308 Lemmas; 748 Word Tokens)*

Nouns (N=150)	**N**	**Adjectives (N=312)**	**N**	**Verbs (N=233)**	**N**	**Adverbs (N=49)**	**N**
life	11	happy/happier	32	want	34	together	8
feeling	10	angry	28	feel	29	especially	6
anger	9	good/better/best	16	try	18	alone	4
shock	5	mad	8	change	10	well	4
wedding	5	upset	8	need	7	completely	3
difference	4	beautiful	7	like	6	quickly	3
experience	4	funny	7	yell	6	basically	2
joke	4	great	7	enjoy	5	naturally	2
war	4	nice	7	get married	4	rapidly	2
effort	3	bad	6	lose	4	awkwardly	1
fun	3	difficult	6	understand	4	bitterly	1
problem	3	different	5	care	3	differently	1
responsibility	3	easy	5	hide	3	extremely	1
trouble	3	frustrated/frustrating	5	laugh	3	forever	1
democracy	2	fun	5	remember	3	hugely	1
disgust	2	interested/interesting	5	bear	2	intensely	1
excitement	2	new	5	break	2	necessarily	1
frustration	2	scared	5	censor	2	normally	1
future	2	busy	4	communicate	2	overly	1
game	2	close	4	dream	2	particularly	1
happiness	2	fine	4	erupt	2	perfectly	1
heaven	2	furious	4	explode	2	simply	1
mind	2	relieved	4	fight	2	specifically	1
opinion	2	worried	4	find	2	totally	1
party	2	excited	3	grin	2		
progress	2	positive	3	help	2		
question	2	right	3	ignore	2		
reason	2	sneaky	3	invade	2	**Interjections (N=4)**	**N**
regret	2	bothered	2	kill	2		
relationship	2	content	2	love	2	oh!	1
temper	2	cool	2	meet	2	wheeww!	1
(the) dark	1	crazy	2	participate	2	wow!	1
adventure	1	critical	2	ruin	2	yep!	1
ambiance	1	diplomatic	2	subside	2		
atmosphere	1	emotional	2	take advantage	2		
attention	1	euphoric	2	think	2		
birthday	1	free	2	work	2		
bliss	1	friendly	2	accept	1		
cancer	1	important	2	agree	1		
celebration	1	nervous	2	appreciate	1		
cheating	1	particular	2	approach	1		
communication	1	pissed off	2	call (a name)	1		
concern	1	pushed	2	celebrate	1		

conflict	1	relaxed/relaxing	2	complain	1
connection	1	thrilled	2	complete	1
contentment	1	underpaid	2	compromise	1
demonstration	1	unwilling	2	control	1
emotion	1	used	2	count on	1
error	1	(to be) taken aback	1	criticize	1
etranger	1	active	1	cry	1
euphoria	1	annoying	1	dance	1
excuse	1	average	1	decide	1
explosion	1	aware	1	die	1
expression	1	bitter	1	divorce	1
fire cracker	1	bizarre	1	explain	1
freedom	1	boring	1	forget	1
heart	1	confused	1	get over	1
holiday	1	deceived	1	go out	1
limitation	1	deceptive	1	hope	1
marriage	1	deep	1	hug	1
match	1	depressed	1	hurt	1
misunderstanding	1	ecstatic	1	invite	1
mystery	1	encouraged	1	jump (up and down)	1
pain	1	expensive	1	lie	1
present	1	extraordinary	1	lit (into someone)	1
princess	1	extreme	1	live	1
prison	1	fabulous	1	marry	1
provocation	1	fair	1	notice	1
reaction	1	fancy	1	offer	1
reinforcement	1	gigantic	1	party	1
relief	1	gorgeous	1	piss off	1
respect	1	happy	1	prefer	1
situation	1	happy-go-lucky	1	promise	1
state	1	hard	1	put up	1
surprise	1	horrid	1	require	1
world	1	impatient	1	resolve	1
		inexpensive	1	shake	1
		introspective	1	share	1
		limited	1	shout	1
		loaded	1	shut off	1
		lost	1	stand up	1
		motivated	1	support	1
		negative	1	tease	1
		objective	1	use	1
		official	1	walk away	1
		outraged	1	work out	1
		overjoyed	1	worry	1
		panicked	1		
		patient	1		
		peaceful	1		
		personal	1		
		pissed	1		
		powerless	1		
		proud	1		
		ready	1		
		red (face)	1		
		regrettable	1		
		responsible	1		
		ridiculous	1		
		screaming	1		
		self-centered	1		

silent	1
silly	1
stressful	1
strong	1
stupid	1
subtle	1
sulking	1
sure	1
surprising	1
sweaty	1
tense	1
unprecedented	1
weird	1
wide	1
willing	1
wonderful	1

Appendix 9:

Total Emotion Lemmas Produced by 18 French-English Bilinguals in L1 French *(495 Lemmas; 1,207 Word Tokens)*

Nouns (N=362)	**N**	**Adjectives (N=313)**	**N**	**Verbs (N=421)**	**N**	**Adverbs (N=106)**	**N**
sentiment	17	bon/meilleur	22	comprendre	19	bien/mieux	32
bonheur	14	heureux	21	essayer	16	complètement	7
bac	11	grand	18	aimer	15	ensemble	5
émotions	11	content	16	être fâché	15	mal	5
joie	11	fort	14	se sentir	14	mieux	5
peur	11	en colère	10	être énervé/être véner	10	simplement	5
besoin	9	furieux	7	remplir	9	énormément	4
colère	9	con	6	fâcher	8	facilement	4
problème	9	extraordinaire	6	ressentir	8	beaucoup	3
déception	7	gentil	6	se fâcher	7	directement	3
envie	7	mauvais/pire	5	penser	6	seul	3
plaisir	6	différent	4	se rendre compte	6	surtout	3
pression	6	difficile	4	sentir	6	méchamment	2
confiance	5	dur	4	adorer	5	normalement	2
énergie	4	fou	4	croire	5	profondément	2
espoir	4	personnel	4	énerver	5	assidument	1
excuse	4	petit	4	exprimer	5	autrement	1
mal	4	drôle	3	insulter	5	carrément	1
monde	4	énorme	3	pousser	5	cliniquement	1
rapport	4	facile	3	rater	5	correctement	1
sensation	4	horrible	3	se disputer	5	extrêmement	1
accident	3	important	3	arriver à	4	franchement	1
agressivité	3	intelligent	3	crier	4	heureusement	1
aventure	3	intense	3	décider	4	intérieurement	1
dépression	3	intéressant	3	heurter	4	malheureusement	1
désert	3	juste	3	hurtler	4	ouvertement	1
erreur	3	malheureux	3	regretter	4	plutôt	1
esprit	3	nul	3	se fouttre	4	poliment	1
expérience	3	plaisant	3	taper	4	principalement	1
expression	3	rancunier	3	voyager	4	rapidement	1
faute	3	sympa	3	absorber	3	spécialement	1
fierté	3	à l'aise	2	aider	3	strictement	1
frustration	3	actif	2	apprécier	3	tellement	1
grossesse	3	addictif	2	calmer	3	totalement	1
horreur	3	agréable	2	casser	3	tranquillement	1
mariage	3	cher	2	contrôler	3	typiquement	1
passion	3	étonnant	2	en vouloir	3		
vie	3	exquis	2	être blessé	3		
violence	3	faux	2	être compliqué	3		
agression	2	féroce	2	être désolé	3	**Interjections (N=5)**	**N**
capacité	2	judicieux	2	être excite	3		
con	2	normal	2	être oblige	3	ouh la!	2
confidence	2	patient	2	être terrifié	3	ah la la la!	1
difficulté	2	possible	2	offrir	3	mince!	1

effervescence	2	terrible	2	perdre	3	wow!	1
enthousiasme	2	théâtral	2	pleurer	3		
épreuve	2	triste	2	s'entendre	3		
être	2	vrai	2	s'exprimer	3		
foisonnement	2	abominable	1	(se sentir) trahi	2		
histoire	2	agressif	1	accepter	2		
honte	2	amoureux	1	affecter	2		
horizons	2	apaisant	1	appartenir	2		
insécurité	2	beau	1	avertir	2		
intensité	2	bizarre	1	avouer	2		
larmes	2	calme	1	blesser	2		
manque	2	capable	1	changer	2		
mort	2	clair	1	claquer	2		
paix	2	cohérent	1	clasher	2		
peine	2	commun	1	confier	2		
perte	2	complet	1	espérer	2		
pleurs	2	compréhensif	1	être accepté	2		
présence	2	concret	1	être angoissé	2		
question	2	confiant	1	être déçu	2		
rage	2	correct	1	être fatigue	2		
rencontre	2	déçu	1	être nourri	2		
respect	2	distant	1	être perdu	2		
résultat	2	égal	1	être soufflé	2		
réunion	2	en dépression	1	être vexé	2		
sourire	2	en pleurs	1	maitriser	2		
souvenir	2	en rage	1	rencontrer	2		
test	2	énorme	1	réussir	2		
tristesse	2	épouvantable	1	s'approcher	2		
voleur	2	extatique	1	s'en fouttre	2		
absence	1	Fâché	1	s'y attendre	2		
accomplissement	1	fatiguant	1	tarder	2		
accouchement	1	génial	1	affronter	1		
affect	1	gratuit	1	arrêter	1		
amitié	1	grave	1	assister	1		
attention	1	gros	1	avoir peur	1		
autorité	1	haineux	1	booster	1		
bêtise	1	historique	1	chialer	1		
blague	1	hystérique	1	communiquer	1		
bombe	1	incapable	1	compter (sur)	1		
calme	1	incontrôlé	1	confronter	1		
chair de poule	1	indélicat	1	débloquer	1		
choix	1	indépendent	1	démolir	1		
coeur	1	jaloux	1	détester	1		
compensation	1	libre	1	détruire	1		
confrontation	1	long	1	divorcer	1		
considération	1	lourd	1	éblouir	1		
contrôle	1	ludique	1	embêter	1		
conviction	1	magnifique	1	enrager	1		
créativité	1	majeur	1	enthousiasmer	1		
crise	1	marrant	1	être absorbé	1		
découragement	1	mécontent	1	être comblé	1		
désaccord	1	merveilleux	1	être déprimé	1		
detour	1	militant	1	être divorcé	1		
diplôme	1	minable	1	être enrage	1		
ébulition	1	modéré	1	être aveuglé	1		
échange	1	mourant	1	être frustré	1		
échec	1	muet	1	être impliqué	1		
effort	1	mutuel	1	être impressionné	1		

essencerie	1	nouveau	1	être outré	1
examen	1	optimiste	1	être soulagé	1
excitation	1	parfait	1	être stressé	1
explication	1	particulier	1	être surpris	1
explosion	1	pénible	1	être terrorisé	1
expression	1	philosophe	1	être touché	1
fatigue	1	positif	1	expliquer	1
fou	1	pourri	1	exploser	1
frayeur	1	prêt	1	froisser	1
gueule	1	problématique	1	imaginer	1
haine	1	profond	1	importer	1
idée	1	pur	1	impressioner	1
infériorité	1	raciste	1	intégrer	1
initiative	1	ravi	1	intéresser	1
insulte	1	relaxe	1	investir	1
libération	1	satisfait	1	laisser tomber	1
luxe	1	scandaleux	1	louper	1
manifestation	1	serein	1	manquer	1
manipulateur	1	sérieux	1	marcher (réussir a)	1
mensonge	1	sévère	1	menacer	1
naissance	1	simple	1	mentir	1
opposition	1	spécial	1	mériter	1
passé	1	spécifique	1	mourir	1
patience	1	surpris	1	narguer	1
prétention	1	tendu	1	oser	1
problématique	1	tragique	1	pardonner	1
provocation	1	violent	1	partager	1
pulsion	1	xénophobe	1	préférer	1
qualité	1			prétendre	1
récompense	1			prévenir	1
regret	1			profiter	1
rejection	1			promettre	1
relation	1			proposer	1
renaissance	1			protéger	1
répercussion	1			recevoir	1
repère	1			réconcilier	1
rupture	1			reconnaitre	1
sécurité	1			récupérer	1
séparation	1			réfléchir	1
solitude	1			refuser	1
stress	1			repugner	1
surprise	1			repulser	1
tape	1			retourner	1
tortureur	1			risquer	1
tunnel	1			s'affronter	1
univers	1			s'apprécier	1
vacances	1			s'approprier	1
valeur	1			s'arranger	1
victime	1			s'attaquer	1
voeu	1			se concentrer	1
				se débarasser	1
				se faire avoir	1
				se gêner	1
				se laisser avoir	1
				se mélanger	1
				se perdre	1
				se séparer	1
				se tasser	1

s'effondrer	1
s'embrasser	1
s'énerver	1
s'enflammer	1
s'imposer	1
s'inquiéter	1
soutenir	1
supporter	1
survivre	1
susicter	1
tuer	1
vivre	1
voler	1

Appendix 10:

Total Stance Lemmas Produced by 20 English Monolinguals *(71 Lemmas; 1,484 Tokens)*

Evidentials: Certainty (N=173)	**N**
I remember/remember	42
I/we know/knew (that)/to know	32
of course	22
actually	20
obviously	7
absolutely	6
I/we found out/didn't find out	6
in fact	5
certainly	4
I find/found that	4
the fact that	4
I'm sure/sure	4
definitely	3
I figured	3
I notice/noticed	3
exactly	2
I realized	2
clearly	1
I have to say that	1
I swear	1
sure enough	1

Evidentials: Doubt (N=239)	**N**
I/we think/thought/don't think/didn't think/thinking	91
I/we didn't know/don't know/not knowing	30
I guess	27
probably	23
I feel/felt that/like	19
I mean	15
it seems/seemed like/as though/there (didn't) seem to be	14
maybe	8
I don't remember/remember	5
it felt like	2
I assumed	1
I can't say (that)	1
I wasn't sure	1
likely	1
possibly	1

Hedges (N=229)	**N**
kind of/kinda	73
like	61
a little/a little bit (of)	34
sort of/sorta	31
pretty	15
almost	10
maybe	2
quite	2
about	1

Emphatics (N=543)	**N**
just	214
very (+ adj/adv)	100
real/really (+ adj/adv/V)	91
so (+ adj/adv/many N/much N)	44
a lot/a lot of	27
more/more (+ adj)	14
the whole + N/a whole + adj	13
too (+ adj/much N)	9
did + V	7
most	4
so much	4
the most/the most + adj	4
mostly	2
much	2
much more	2
even	1
no least bit	1

Modals (N=300)	**N**
will/won't/would/wouldn't	172
can/can't/could/couldn't	108
may/might	9
should/shouldn't	8
must	3

only	1
super (+ adj)	1
the adj-est N ever	1
the entire + N	1

Appendix 11:

Total Stance Lemmas Produced by 19 French Monolinguals *(72 Lemmas; 784 Tokens)*

Evidentials: Certainty (N=182)	**N**
en fait	79
justement	17
je sais/je savais/on savait/sachant (que)	11
je crois que/j'ai cru que	11
je trouve/trouvais/ai trouvé (ne…pas) (que/ça + adj)	10
je me souviens/m'en souviens	6
le fait que/de	5
c'est vrai que	4
forcément	4
bien sûr	3
exactement	3
je pense (que)	3
j'étais sur	3
tout à fait	3
j'ai su que	3
absolument	2
du fait que	2
effectivement	2
je me rappelle/rappelais	2
au plus que je sais	1
confirmation	1
d'ailleurs (en fait)	1
franchement	1
j'ai appris que	1
j'ai la preuve que	1
je vous assure que	1
on connaissait	1
tu te rends compte (depers.)	1

Evidentials: Doubt (N=118)	**N**
je sais pas/chais pas/j'en sais rien/	43
je savais pas/on sait pas/on a pas su	
peut être/p'être	31
je pense/pensais (pas) que/on pense que	21
j'ai/on a l'impression que	4
pas forcément	4
apparemment	2
on se rend pas compte	2
pas évident	2
ça avait l'air	1
j'ai des doutes	1
je crois	1
je le sentais	1
je m'en rappelle plus	1
je m'en souviens plus	1
je supposais que	1
moins sûr	1
on imagine	1

Hedges (N=88)	**N**
un peu/un ptit peu	50
assez (+ adv/adj)	22
presque	7
une sorte de + N	3
pas mal	2
une espèce de + N	2
moins	1
sans trop	1

Emphatics (N=308)	**N**
vraiment	107
beaucoup	58
très (+ V/adv/adj)	54
trop/trop + V/trop + adj/adv	24
plus/plus de + N/plus + adj	17
super + adj	14
juste	9
pleins (de + N)	7
même (pas)	4
tellement + adj	3

Modals (N=88)	**N**
pouvoir	43
vouloir	24
devoir	21

encore plus	2
hyper (+ adj)	2
le plus	2
pas du tout	2
seulement	2
pas tellement	1

Appendix 12:

Total Stance Lemmas Produced by 18 French-English Bilinguals in L2 English *(59 Lemmas; 746 Tokens)*

Evidentials: Certainty (N=78)	**N**
actually	16
I (will) remember	11
I/we knew/knowing that/to know that	11
I realize that/ you (depers.) realize/to realize	7
definitely	6
the fact that	5
in fact	4
obviously	4
of course	4
I/we found that/to find out	3
it's true (that)	2
absolutely	1
clearly	1
exactly	1
I have to say that	1
we believed that	1

Evidentials: Doubt (N=125)	**N**
I can/could/couldn't think/I think/ I thought/I don't/didn't think	30
I guess	17
I/we don't/didn't know	16
maybe	15
I mean	14
probably	10
I/you (depers.) feel/felt (that)	9
I don't/can't remember	5
I suppose	4
apparently	2
I don't recall	1
it was impossible	1
seem	1

Hedges (N=112)	**N**
like	56
kind of/kinda	25
a little/a little bit	11
quite	5
pretty	4
almost	3
a bit	2
probably	2
sort of	2
enough	1
more or less	1

Emphatics (N=314)	**N**
really	110
just	84
very (+ adj/adv)	62
so (+ adv/adj)	13
a lot/a lot of + N	11
even	6
more/more + adj/+ N	5
do/did + V	4
much/much + adj	4
only	4
the whole + N	4
mostly	3
too + adj	2
full of + N	1
very much	1

Modals (N=117)	**N**
can/can't/cannot/could/couldn't	71
will/would	38
should	5
may/might	3

Appendix 13:

Total Stance Lemmas Produced by 13 English-French Bilinguals in L2 French *(50 Lemmas; 377 Tokens)*

Evidentials: Certainty (N=69)	**N**
je crois (que)	20
je trouve/j'ai trouvé (que/ca + adj)	9
en fait	8
je me souviens (que)	7
le fait que/de	5
exactement	4
je me suis rendu compte que	4
évidemment	2
j'ai appris que	2
j'ai su/on a su/on avait su que	2
c'est certain que	1
c'est clair que	1
clairement	1
en realité	1
évident	1
je suis sûr que	1

Evidentials: Doubt (N=59)	**N**
je pense/pensais (que)	16
je (ne) sais/chais/savais pas	16
peut être	11
j'ai/j'avais l'impression que/de	8
je me rappelle plus	2
c'est/c'était pas possible	2
la possibilité de	1
apparemment	1
j'ai le sentiment que	1

Hedges (N=42)	**N**
un peu/ptit peu	23
assez	8
presque	6
une sorte de	2
moins + adj	1
quelque chose comme	1
une espèce de	1

Emphatics (N=153)	**N**
vraiment	64
très (+ adv/adj)	33
beaucoup	17
juste	10
tellement/tellement de + N	6
trop/trop de + N	6
même	4
plus/plus de + N	4
pas du tout	2
super + adj	2
encore	1
hyper + adj	1
le plus	1
pleins de + N	1
tout	1

Modals (N=55)	**N**
pouvoir	36
vouloir	14
devoir	5

Appendix 14:

Total Stance Lemmas Produced by 13 English-French Bilinguals in L1 English *(65 Lemmas; 552 Tokens)*

Evidentials: Certainty (N=58)	**N**
actually	18
I remember	7
the fact (that)	5
I find/found that	4
I know/we know/knew/knowing that	4
of course	4
I realize/realized/realizing	3
I'm sure	2
obviously	2
it was obvious	1
absolutely	1
certainly	1
clearly	1
definitely	1
exactly	1
I assume	1
in fact	1
it dawns on me	1

Evidentials: Doubt (N=98)	**N**
I think/didn't think/thought (that)/ thinking/I would have thought/I don't think	42
I don't know/I didn't know	12
probably	10
maybe	8
I mean	7
I guess	5
seem	4
I feel (that)	2
I try to remember/remember	2
I had the impression that	1
I'm not sure	1
likely	1
not necessarily	1
possibility	1
the idea of	1

Hedges (N=94)	**N**
like	40
kind of/kinda	22
a little/a little bit	8
sort of	7
almost	4
pretty	4
quite	3
a bit	1
a few	1
few	1
little	1
only	1
some	1

Emphatics (N=224)	**N**
just	80
really	52
very (+ adj/adv)	47
so (+ adj/adv)	11
a lot	10
much	6
more	4
too + adj	4
did + V	2
most	2
the whole + N	2
all + N	1
at all	1
lots of	1
such	1

Modals (N=78)	**N**
will/would	37
can/can't/could/couldn't	32
may/might	5
should	4

Appendix 15:

Total Stance Lemmas Produced by 18 French-English Bilinguals in L1 French *(80 Lemmas; 600 Tokens)*

Evidentials: Certainty (N=142)	**N**
en fait	38
je me souviens/me suis souvenu/me souviendrai (que)	19
je crois (que)/je croyais	11
absolument	9
je me suis/je m'etais/on s'est rendu compte/tu (depers.) te rends compte	9
c'est vrai que	6
je trouve/j'ai trouvé que	5
je savais/on sait (que)	4
le fait de/que	4
évidemment	3
tout à fait	3
bien sûr	2
certainement	2
c'est clair que	2
effectivement	2
en effet	2
exactement	2
forcément	2
hors de question	2
j'ai appris que	2
je dois dire que	2
justement	2
à ma connaissance	1
bien entendu	1
c'est sûr que	1
en sachant que	1
franchement	1
j'ai su	1
j'étais sûr que	1
pratiquement (=en fait)	1
véritablement	1

Evidentials: Doubt (N=64)	**N**
je sais/savais pas/plus/chais pas	20
je pense (pas) que/j'ai pense que/pensais pas que	14
peut être/p'être	9
j'ai eu/j'avais/on a l'impression que/de	5
je sentais/j'ai senti/de sentir que	5
l'idée de	2
ce qui est apparu	1
j'ai pas réalisé	1
je crois pas que	1
je me souviens plus	1
je peux pas dire que	1
je ressentais que	1
pas nécessairement	1
pas tout à fait	1
probablement	1
	1

Hedges (N=69)	**N**
un peu/petit peu	32
assez	11
une/toute sorte de	5
le genre de	3
presque	3
pas mal	2
pas tellement	2
pas très/trop	2

Emphatics (N=233)	**N**
très (+ adv/adj)	103
vraiment	51
beaucoup	33
trop/trop + adj	8
pas du tout	7
tellement	7
plus + adj	5
plus/plus de + N	5

Modals (N=91)	**N**
pouvoir	50
vouloir	29
devoir	12

peu de	2	juste	3
plutôt	2	plein de	3
à peu près	1	super + adj	2
moins	1	tout	2
pas du tout	1	en plus	1
plus ou moins	1	encore	1
un certain + N	1	encore plus	1
		seulement	1

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Vita

Jee Gabrielle Paik attended the Lycée Français Jean Mermoz, in Dakar, Sénégal. In 1997, she entered the University of South Carolina in Columbia, South Carolina, and received the degree of Bachelor of Arts in French, with a minor in Linguistics, in 2001. During the summers of 2001 and 2002, she completed her graduate work in TEFL (Teaching English as a Foreign Language) at the University of South Carolina and received her certificate for graduate studies in TEFL. After her undergraduate studies, she entered the Graduate School at the University of Texas at Austin, where she was awarded the degree of Master of Arts in French Linguistics in 2003. Her research interests include Second Language Acquisition, Applied Linguistics, Sociolinguistics, issues of Bilingualism and Multilingualism, Identity and the Expression of Emotions in a First and Second Language.

E-mail address: jee_paik@hotmail.com

This dissertation was typed by the author.